### JOURNAL

OF THE

# History of Medicine

### AND ALLIED SCIENCES

Winter 1947

VOLUME II • NUMBER 1



New York: HENRY SCHUMAN, INC. LONDON: WM. HEINEMANN - MEDICAL BOOKS - LTD. Copyright 1947, by HENRY SCHUMAN, INC.

Printed in the United States of America By The Tenny Press, 250 W. 54th St., N. Y. 19

## JOURNAL OF THE HISTORY OF MEDICINE AND ALLIED SCIENCES

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## Janus, 1846-1946 GEORGE ROSEN\*

1846 - Bernard DeVoto has called 1846 a year of decision in relation to the history of the United States. As concerns the history of Medicine, it may more accurately be called a year of transition. It was a year in which new ideas and new methods burst forth, and yet in many ways it was still dominated by the past. 1846 saw the announcement of ether anesthesia in America, and the discovery by Claude Bernard, in France, of the role played by pancreatic juice in digestion. In Boston, there appeared in 1846 a Report to the Committee of the City Council Appointed to Obtain the Census of Boston for the Year 1845 . . . by Lemuel Shattuck, a publisher, who thus set out to become the first public health statesman in America. And in Germany, Jacob Henle issued the second edition of the first volume of his Handbuch der rationellen Pathologie, which had first appeared only the year before. Yet while Henle issued forth under the challenging slogan of "rational medicine" to attack the forces of error and reaction, in Bavaria the all-powerful Johann Nepomuk von Ringseis, who saw disease as the consequence of man's original sin, forced medicine to subordinate itself to theosophy. In 1846, in London, John Elliotson, protagonist of mesmerism, delivered the Harveian Oration, in which he gave a dignified and eloquent presentation and defense of his views. For this, he was roundly and savagely denounced by Thomas Wakley, editor of the Lancet. Peculiarly appropriate, therefore was the appearance in 1846 of a journal devoted to the history of medicine, and bearing the title lanus.

Periodicals devoted to the history of medicine had already appeared in the eighteenth century. In 1790, Philipp Ludwig Wittwer (1752-1792) published at Nürnberg the first and only number of his Archiv für Geschichte der Arzneykunde in ihrem ganzen Umfange. Several years later, Kurt Sprengel (1766-1833), the historian, issued two volumes of Beiträge zur Geschichte der Arzneiwissenschaft (Halle 1794-96). These

\*Fil ter of the Journals.

Chinese Note: This is the first of a series of crease on the history and theory of media.

<sup>\*</sup> Ed tor of the Jovense.

early efforts were so short-lived, however, that Janus may be said to have been the first modern periodical devoted to medical history that continued in existence for any considerable length of time. (Five volumes were published between 1846 and 1853.) Noteworthy, also, is the spirit of scientific internationalism and scholarship which characterized the journal from its very inception.

The editor of Janus was August Wilhelm Eduard Theodor Henschel (1790-1856), professor of clinical medicine at Breslau, well-known for his excellent studies on the history of medicine in Silesia during the Middle Ages, and for his discovery, in the library of the Breslau Gymnasium, of a Compendium Salernitanum dating from the latter part of the twelfth century, which awakened an intense interest in the ancient Civitas Hippocratica. The journal was first announced in 1845 by a prospectus, which indicated that Henschel would have as associate editors a number of eminent medical historians, among them Ludwig Choulant (1791-1861), Heinrich Haeser (1811-1885), J. F. C. Hecker (1795-1850), and Julius Rosenbaum (1807-1874). The appearance of the first issue more than fulfilled this promise. Associated with Henschel were not only the leading German medical historians, but also many distinguished foreign scholars. For the period it was a truly international group. De Balzac, Daremberg Littré, Pétrequin, Renouard, and Saucerotte represented France; Greenhill, England; and Bussemaker, Ermerins, and Israels represented Holland. In addition to the Germans mentioned above, the following also appeared on the title page of the first volume as associate editors: C. G. Carus, H. Damerou, C. H. Fuchs, A. Göschen, C. F. Heusinger, F. Jahn, K. J. H. Marx, Fr. Nasse, J. F. Osiander, E. A. Quitzmann, J. Sichel, E. C. J. von Siebold, J. G. Thierfelder, and F. W. Wüstenfeld.

According to the prospectus, Henschel envisioned Janus as providing a medium of publication for original contributions dealing with various periods in the development of medicine, with the history of diseases, therapy, medical geography, professional organization, and medical legislation. In addition, it would contain sketches and biographical accounts of outstanding physicians, important historical texts and documents, reports on current devolopments of interest to doctors, such as accounts of new discoveries and inventions, as well as statistical communications on existing medical conditions, and reviews of important medico-historical publications. Truly, an impressive program!

When Janus first appeared in 1846, it was published at Breslau. Two further volumes appeared there in 1847 and 1848, but thereafter publication was suspended. In 1851, however, Janus reappeared at Gotha in a slightly different guise. The journal was now under the joint editorship of four men: H. Bretschneider, A. W. E. T. Henschel, C. F. Heusinger, and J. G. Thierfelder; and bore the subtitle: Magazine for the History and Literature of Medicine, Medical Biography, Epidemiography, Medical Geography, and Statistics. Despite the perseverance of Henschel, the moving spirit of the journal, Janus was not destined to enjoy a long life. With the publication of another volume in 1853, it ceased to exist and became a subject for historical study.

The failure of Janus to take root and flourish may be attributed to the lack of sympathy and interest with which it was received by the medical profession. This lack of interest was probably the result of two related trends in German medicine. It was a period when German medicine, having turned away from the mystical speculations of Romantic philosophy, was not likely to look with favor on anything that hinted at such a connection. Among the associate editors of Janus were a number of adherents of the Romantic school in medicine: Carl Gustav Carus, Heinrich Damerou, Ferdinand Jahn, J. M. Leupold, and E. A. Quitzmann; and this circumstance may have led progressive doctors to regard Janus as representing a reactionary tendency. Connected with this trend was the attitude, particularly widespread among the younger men, to turn away from the past, and to look to the present for inspiration. The times were pregnant with discovery, and the possibilities seemed unlimited. In 1846, Virchow became prosector at the Charité, and Traube started the Beitrage zur experimentellen Pathologie, which printed some of Virchow's famous work on embolism and thrombosis. A year later (1847), Virchow and his friend Reinhardt launched their Archiv für pathologische Anatomie und Physiologie und für klinische Medizin. In 1851, Helmholtz discovered the ophthalmoscope, and Claude Bernard reported his first experiments on the vasomotor nerves. Henschel was aware of these trends, particularly the latter. In an introductory article (to the 1851 volume), entitled "Is Medical History Timely?", he says: "When doctors, especially those of the most recent school, withdraw from the older medico-historical studies, it is likewise very understandable, and indisputably has a deeper significance related to the great intellectual movements of our time. Our period is unmistakably engaged in a total, vital process of regeneration; and many promising paths of research have been discovered which are being followed with devotion and success. . . ."

Despite its relatively short life, however, the achievement of Janus was substantial. As Karl Sudhoff pointed out, "old Janus" is still being used constantly as an indispensable tool by students of medical history. Henschel's papers on the Salernitan manuscript are still basic for a knowledge of the school of Salerno; and similarly significant are the articles by Wüstenfeld on Moslem medicine, and Heusinger on the history of epidemics.

Another interesting feature is the attention given to medical geography. Several contributions on this subject appeared in the first volume: "The disease described by English Physicians in East India under the name Burning of the feet," and "The 'Cak' in Sennaar, an epidemic disease, probably comparable to maize-pellagra," both by Heusinger. In later volumes appeared articles on the folk-medicine of Ceylon, and on the "distribution of diseases in a vertical direction from the North Sea coast to the ridge of the Thuringian forest." The latter contribution was by C. H. Fuchs, author of a Medicinische Geographie that appeared in 1853, and represents a type of epidemiological thinking which was prevalent in the pre-bacteriologic period of the nineteenth century. His work was severely criticized in Schmidt's Jahrbücher (78 [1853] 355-73) by August Hirsch, who in 1860 published his classic Handbuch der historisch-geographischen Pathologie.

The exitus of Janus was a severe blow, and it was not until 1878 that a new journal of medical history appeared. This was the Deutsches Archiv für Geschichte der Medicin und medicinische Geographie, edited by the brothers Heinrich and Gerhard Rohlfs.

Fifty years after the appearance of the original Janus, in 1896, a new journal bearing the same name was founded in Holland. This journal for the history of medicine and medical geography was more successful, however, than its earlier namesake and enjoyed a long life. In 1929, the William H. Welch Medical Library was opened in Baltimore, and Janus, quick to sense the historic importance of the occasion, appeared once again on the stage of medical history. In honor of Dr. Welch, the five volumes of the original Janus were reproduced in facsimile, and issued under the editorship of Karl Sudhoff.

Viewed retrospectively from the vantage point of 1946, the pioneer

<sup>&</sup>lt;sup>1</sup> This Journal will be discussed in a subsequent paper.

effort of Henschel and his collaborators deserves to be recognized as an important milestone in the development of medical history. At the same time, however, it also teaches the historian of medicine an important lesson, namely, that medical history cannot remain wholly in the past, if it is to have any meaning for the physician of the present. The medical historian, who remains intellectually isolated from the present, will fail to perform a very important function—he will fail to bridge the gap between the past and the present, and thus in large measure vitiate his own labors.

### Dr. Thomas Bond's Essay on the Utility of Clinical Lectures

#### CARL BRIDENBAUGH\*

A MONG many sociologists and historians it has become an accepted axiom that Eighteenth-Century America suffered from the "cultural lag" which is commonly observed in all colonies when their achievements are compared with those of older, established societies. Upon close examination, however, there appears considerable doubt of the validity of this sweeping generalization. For example, the cultural flowering of Philadelphia, 1740–1776, placed it not on the periphery but squarely in the center of the Enlightenment. In this second city of the British Empire there was often no "lag" at all, for in such activities as electrical research, organized philanthropy, prison reform, and scientific publications, Philadelphians set the pace for Europeans to follow—and were recognized by European savants as so doing.

By 1750, Philadelphia medical men, with ideas of their own and thoroughly cognizant of current European developments, began energetically to provide their community with the best possible facilities for the prevention and cure of disease by promoting legislation for the cleaning and paving of streets and the draining of swamps, by founding the Pennsylvania Hospital (1751), by establishing a Medical School at the College (1765), and by founding a Medical Society (1766). The towering figure in this noteworthy advance was Dr. Thomas Bond, who as philanthropist, physician, surgeon, and organizer of medical and scientific activities proved himself the outstanding member of the faculty in the thirteen colonies.

Although Giovanni Battista Morgagni of Padua had published his Seats and Causes of Disease, which established the study of pathological anatomy, as recently as 1761, Dr. Bond was ready by 1766 to add lectures at the Pennsylvania Hospital on this new and fundamental subject to the theoretical instruction provided by Doctors Morgan and Shippen at the

<sup>\*</sup> Institute of Early American History and Culture, Williamsburg, Virginia.

and Jessica Bridenbaugh in Rebels and Gentlemen: Philadelphia in the Age of Franklin (New York 1942).

Medical School.2 To the Sitting Managers of the Hospital Dr. Bond addressed a letter in which he proposed that "they would give Liberty and Encouragement for the Reading Clinical Lectures, to the Students in Physic, on the Nature, Cause and Cure of Diseases, and to put up a Meteorological Apparatus in the Picture Room, for observation of the Weather, and keeping an Exact Account of the Epidemic Diseases thereby caused." The Board was agreeable and designated December 11, 1766, as the day upon which it would assemble to listen to "the plan intended to be prosecuted by the Physicians of the Hospital."

This lecture, delivered at Dr. Bond's home before an enthusiastic audience composed of the Managers of the Hospital, professors of the College, leading physicians of the city and "near thirty Students," ranks with Dr. Morgan's Discourse upon the Institution of Medical Schools in America (1765) as one of the early classics of American medical literature. It sets forth a point of view which was ignored between the Revolution and the Civil War, but which today is recognized as valid.2 Largely overlooked by students of our medical history, it has been twice printed in publications now generally inaccessible: the North American Medical and Surgical Journal 4 (1827) 264-75; and in the appendix of T. G. Morton and F. Woodbury, The History of the Pennsylvania Hospital (Philadelphia 1897). The text here produced is taken from the Minutes of the Managers of the Pennsylvania Hospital (pp. 277-289), from whom, through the good offices of Miss Florence Greim, permission has been generously granted for publication. In the interest of clarity a few minor changes have been made in punctuation and spelling.

DOCTOR THOMAS BOND'S INTRODUCTORY LECTURE TO A COURSE OF CLINICAL OBSTEVATIONS IN THE PENNSYLVANIA HOSPITAL, DELIVERED THERE DECEMBER THE 3RD 1766

When I consider the unskilful hands the Practice of Physic and Surgery has of necessity been Committed to, in many Parts of America, it gives me pleasure to behold so many Worthy Young Men, training up in those professions, which, from the nature of their Objects, are the most interesting to the Community, and yet a greater pleasure in foreseeing, that the unparalled public Spirit, of the Good

Dr. John Motorn, founder of the Medical School, had met Motorprei and had been presonted with an autographed set of his works (which is now in the Library of the College of Physicians, Philadelphia). He die not however, appear to have conseived

See Richard H. Shryock, "Factors Affecting Medical Research in the United States, 1800-1900," Balletin of the Society of Medical History of Chicago 5(1943) 1-5. For the medical scene in Philadelphia at the time of the delivery of Dr. Bond's lecture, could be added to the delivery of Dr. Bond's lecture, could be added to the delivery of Dr. Bond's lecture. 

People of this Province, will shortly make Philadelphia the Athens of America, and Render the Sons of Pennsylvania, reputable amongst the most celebrated Europeans, in all the liberal Arts and Sciences. This I am at present Certain of, that the institutions of Literature and Charity, already founded, and the School of Physic lately open'd in this City<sup>5</sup> afford sufficient Foundation for the students of Physic to acquire all the Knowledge necessary for their practising every Branch of their professions, reputably, and Judiciously.

The great Expence in going from America, to England, and thence from Country to Country, and Colledge to Colledge, in Quest of Medical Qualifications, is often a Barr to the cultivation of the Brightest Geniuses amongst us, who might otherwise be Morning Stars in their professions, and most useful Members of Society. Besides every Climate produces Diseases peculiar to itself, which require experience to understand and cure; and even the Diseases of the several Seasons in the Same Country, are found to differ so much some Years, from what they were in others, that Sydenham, the most Sagacious Physician that ever lived, acknowledges that he was often difficulted and much mistaken in the treatment of Epidemic's for some time after their appearance.

No Country then can be so proper for the instruction of Youth in the knowledge of Physic, as that in which 'tis to be practised; where the precepts of never failing Experience are handed down from Father to Son, from Tutor to Pupil.

That this is not a Speculative opinion, but real Matter of Fact, may be proven from the Savages of America, who without the assistance of Literature have been found possessed of Skill in the cure of Diseases incident to their climate, Superior to the Regular bred, and most learned Physicians, and that from their discoveries the present practice of Physic has been enrich'd with some of the most valuable Medicines now in use.

Therefore from Principles of Patriotism and Humanity, the Physic school here, should meet all the protection and Encouragement, the Friends of their Country, and Well Wishers of Mankind can possibly give it. Though 'tis yet in its Infancy from the Judicious Treatment of it's Guardians, it is already become A forward. Child, and has the promising appearance of soon arriving to a Vigorous and Healthful Maturity. The professors in it at present are few; but their departments include the most Essential parts of Education; Another, whose distinguish'd Abilities will do honour to his Country and the Institution, is Expected to join them in

<sup>4</sup> Dr. Bond doubtless had in mind the Library Company and the College of Philadelphia in which he, personally, had taken an active part. The cultural life of Philadelphia is discussed against its provincial and European backgrounds in Bridenbaugh, Rebels and Gentlemen.

<sup>5</sup> During commencement, May 30-31, 1765, Dr. John Morgan delivered before the College audience, in two parts, his notable Discourse upon the Institution of Medical Schools in America (Philadelphia 1765; re-

printed in Bibliotheca Medica Americana 2 [Baltimore 1937]), and in September came the joint announcement of Dr. Morgan's lectures on Materia Medica and those of Dr. William Shippen on anatomy and surgery. Pennsylvania Gazette, Sept. 26, 1765.

6 Not only did the cost of a European education confine medical training to the

education confine medical training to the upper class, it was dangerous. At least two young medical students lost their lives in the Atlantic crossing. Bridenbaugh, op. cii. 276-78.

the Spring,7 And I think he has little Faith who can doubt that so good an undertaking will ever fail of Additional Strength, and a Providential Blessing. And I am certain nothing would give me so much pleasure, as to have it in my Power to contribute the least mite towards it's perfect Establishment.

The Professor of anatomy and Physiology, s is well qualified for the Task; his Dissections are accurate and Elegant, and his Lectures, Learned, Judicious, and Clear.

The Professor of the Theory and Practice of Physic,9 has had the best opportunities of improvement, join'd to Genious and application, and cannot fail of giving Necessary and instructive Lessons to the Pupils.

The Field this gentleman undertakes is very Extensive, and has many difficulties which may mislead the Footsteps of an uncautioned Traveller, therefore Lectures, in which the different parts of the Theory and Practice of Physic are Judiciously Classed and Systematically explain'd, will prevent many Perplexities the student would otherwise be Embarrassed with, will unfold the Doors of Knowledge, and be of great use in directing and abridging his future Studies, Yet there is something further wanting, he must Join Examples with Study, before he can be sufficiently qualified to prescribe for the Sick; for Language and Books alone, can never give him Adequate Ideas of Diseases, and the best methods of Treating them. For which reasons Infirmaries are Justly reputed the Grand Theatres of Medical Knowledge.

There the Clinical professor<sup>10</sup> comes into the Aid of Speculation and demonstrates the Truth of Theory by Facts: he meets his Pupils at stated times in the Hospital, and when a case presents adapted to his purpose, he asks all those Questions which lead to a certain knowledge of the Disease, and parts affected; this he does in the most exact and particular manner, to convince the Students how many, and what minute circumstances are often necessary to form a judgment of the curative indications, on which, the safety and Life of the Patient depend, from all which Circumstances and the present Symptoms, he pronounces what the Disease is, whether it is cutable or Incurable, in what manner it ought to be treated, and gives his reasons from Authority or Experience for all he says on the occasion; and if the Disease baffles the power of Art, and the Patient falls a sacrifice to it, he then brings his knowledge to the Test, and fixes Honour or discredit on his Reputation by exposing all the Morbid parts to view.

tures he proposes to give.

Dr. Adam Kuhn, armed with an Edinburgh degree, returned from botanical study with lannieus to become Professor of Materia Medica in January, 1768, Beidenbaugh, of in 201; Ferrisliania Jeannal, May 5.

<sup>\*</sup>Dr. William Shippen, also an Edinburgh graduate with a littional training in sur-s of at London under Dr. William Hewson and the Hunters, began his courses in anatone water the sponership of the Prinsplane Hospital in the and continued them until ante, when he became a professor in the Medical School Ferriliania Gazette.

Nov. 11, 1762.

Dr. John Morgan "graduated at Edinburgh with an eclat almost unknown before," and came home after the Grand Tour "Eushed with honers"—Fellow of the Royal Society, Corresponding Member of the Royal Society, Corresponding Member of the Royal Addemy of Surgery at Paris, Licentiate of the Royal College of Physicians in London as well as in that of Edinburgh, Permylvaria 20 well as in that of Edinburgh, Pennyltania Magazine of History and Biogeophy, 18 [1594] 37, 40; Pennyltania Gazette, Oct. 2. 1763; Dec. 8, 1-66
16 Here Dr. Band refers to the clinical lec-

and Demonstrates by what means it produced Death; and if perchance he finds something unsuspected, which betrays an Error in Judgment, he like a great and good Man, immediately acknowledges the mistake, and for the benefit of survivors points out other methods by which it might have been more hapily Treated. The latter part of this field of Tuition is the surest method of obtaining just Ideas of Diseases. The great Booerhave<sup>11</sup> was so attentive to it, that he was not only present at the opening of Human Bodies, but frequently attended the Slaughter Houses in Leyden, to examine the Carcases of Beasts; and being asked by a learn'd Friend, by what means he had acquired such uncommon certainty in the Diagnostic's and Prognostic's of Diseases, answered by examining dead Bodies, studying Sydenhams observations, and Bonetus's Sepulchretum Anatomicum, both which he had read ten times, and each time with greater pleasure, and improvement.<sup>12</sup>

But to give you more familiar instances of the utility of this practice, let me remind several of You, who were present last Fall at the opening two Bodies, <sup>13</sup> One of which died of Astmatic complaints, the other of a Phrenzy succeeded by a Palsey, and ask you whether any thing short of occular demonstration, cou'd have given you just Ideas of the causes of the Patients Death, in one we saw a Dropsy in the left side of the Thorax, and a curious Polypus with its growing Fimbriae of 14 Inches in length (now in the Hospital) extending from the left Ventricle of the Heart, far beyond the Bifurcation of the pulmonary Artery, in the other we found the Brain partly superated and the Ventricle on the opposite side to that affected, with the Paralysis, distended by a large Quantity of Limpid Serum; and you must Remember, that the state of all the Morbid parts were predicted, before they were exposed to View: which may have a further advantage, by rousing in you an industrious pursuit after the most hidden causes of all the affections of the Human Body; and convince you what injury they do to the living, who oppose a decent, painless, and well timed examination of the Dead.

Thus all the professors in the best European Colledges, 14 go hand in hand, and co-operate with each other by regular chains of Reasoning and occasional demonstrations, to the satisfaction and improvement of the Students.

But more is required of us in this late settled world, where new Diseases often occurr, and others common to many parts of Europe visit us too frequently, which it behoves the Guardians of Health, to be very watchful of, that they may know them well, and by an hearty union, and Brotherly communication of observations investigate their causes, and check their progress. The Task is Arduous, but 'tis a Debt we owe to our Friends and our Country. The Atmosphere that Surrounds

tions of Théophile Bonet, consult Shryock,

vania Gazette, Apr. 12, 1764.

14 This was true of Continental medical schools, rather than of those in the British Isles.

13103-

<sup>&</sup>lt;sup>11</sup> Herman Boerhaave of Leyden, under whom several Philadelphians had studied. His influence was strong in Edinburgh too. See Richard H. Shryock, *The Development* of Modern Medicine (Philadelphia 1936) 67-68.

<sup>12</sup> For Thomas Sydenham, the great English clinician, see David Riesman, Thomas Sydenham (New York 1926); and on the somewhat uncritical pathological observa-

op. cit. 63-64.

13 Probably the bodies of patients who died either at the Pennsylvania Hospital or at the Bettering House. In 1764 Dr. Shippen had dissected the body of a Negro suicide before students in his "theatre." Pennsylvania Gazette. Apr. 12, 1764.

us is fine, and the Air we breath, free, pure, and Naturally healthy, and I am fully perswaded we shall find on strict enquiry, when it becomes otherwise, 'tis mostly from contagion imported, or neglected Sources of Putrifaction, amongst ourselves, and therefore when ever we are able to Demonstrate the Causes, they may be removed and the Effects prevented.

Our Fathers after insuring to us the full enjoyment of the inestimable blessings of Religious and Civil Liberty, have settled us in a Country that affords all the real comforts of life, and given us the prospect of becoming one Day, a great and happy People, and I know only one Objection to a prudent Mans giving North America the preference to any other part of the British Dominions for the place of his residence, which is, that the climate is sometimes productive to severe Epidemic Diseases in the Summer and Fall:15 the Country is otherwise free from those tedious and dangerous Fevers which frequently infest most parts of Europe. The last wet Summer and a short space of hot dry Weather in Autumn, caused so many Intermittents from the Southern Suburbs of this City all the way to Georgia. that I may venture to assert two thirds of the inhabitants were not able to do the least Business for many Weeks, and some families and even Townships were so distress'd that they had not well persons sufficient to attend the Sick, during which time this City was unusually Healthy. How respectable then wou'd be the Characters of those Men, who shou'd wipe this Stain out of the American Escutcheon and rescue their Country from such frequent calamaties.

Sufficient encouragement to make the attempt is found both in History, the Books of Physic, and our own Experience. Several instances are recorded of places that were so sickly, as to be uninhabitable, until Princes have ordered their Physicians to search into the causes of their Unhealthiness, and having discover'd and removed them, made thereby valuable additions to their Kingdoms. Was not our Antient and Great Master, Hippocrates, so knowing in the cause of Pestilential Contagion, as to foresee an approaching Plague, and send his pupils into the cities to take care of the Sick, and has not He, and Sydenham the English Hippocrates, done infinite Service to the healing Art, and gained immortal Honours to themselves, by their Essays on Epidemic's in which they not only accurately describe the Diseases of their Respective Countries, but shew the depraved constitution of the Air which produced each of them. Our own Experience also affords much Encouragement, when I first came into this City the Dockas was the common Sewer of Filth, and was such a Nuisance to the inhabitants about it, every Fall, that they were obliged to us more pounds of Bark, it than they have Ounces since

" Physicians of Philadelphia and of the Surfam Cel nies spect much time in the study of the capies and cure of "Fevers." The event elembrant work on this subject was dr Frest or Feder, by Dr. Linnel Outros of Challeton, S. C., which ran on the in the Terriplestus Cleeniale (Dec. to, totsdie 2, 1761) through the good for of Dr. Morein and the American Sw. one for Forming Unful Kombelge, It

was published in book form in Philadelphia

offed Jount Bark or Catholic Bark.

was published in book form in ranadespina in 1769 and at London in 1776.

If For years the "Dock" had been a reseptiate for dead dogs, carried and fith—Ta publick muisance injurious to health." In 1763 the authorities ordered it filled in to form the present Dock Street. Statutes at Large of Februsiania (Vols. 2013 Harrishore at Karona) & 212-226. hute 18 (6-1009) 5. 234-836.
II In colonial days quining was commonly

it has been raised, and levell'd. Another striking instance of the Advantage of Cleanliness for the preservation of Health, affords me an Opportunity of paying a Tribute, justly due, to the Wisdom of the Legislature of this Province, in framing the salutary Laws for paving and regulating the Streets of this City,18 and to the indefatigable industry and Skill of the Commissioners in excuting them, whereby they have contributed so much to the Healthiness of the Inhabitants, that I am confident the whole Expence will be repair'd in ten Years, by the lessening of Physic Bills alone. A Farm within A few miles of this city was remarkably healthy for Fifty Years, whilst the Tide overflow'd the Low Lands, near the dwelling House, but after they were Bank'd in by Ditches so ill contrived that they often did not discharge the Water that fell into them for considerable time, and until it became putrid, and thereby rendered the place as remarkably Sickly, as it had before been healthy, I was told by a Gentleman of Veracity that he saw the Corps of One of Nine tenants that had been carried from it in a few Years.

The Yellow Fever, which I take to be exactly the same distemper as the Plague of Athens, described by Thucydides, has been five different times in this City since my residence in it, the causes of three of them I was luckly able to Trace, and am certain they were the same, which produced a Goal Fever in other Places, and am of opinion the difference betwixt the appearance of these Fevers, arises from the Climate, and the different state the Bodies are in when they Imbibe the Contagion; if so, the Same methods which are taken to prevent a Goal Fever, will equally prevent a Yellow Fever; 'Twas in the Year Forty One,10 I first saw that horrid Disease which was then imported by a Number of Convicts from the Dublin Goal. (The second time it prevailed it was indigenous from Evident causes, and was principally confined to One Square of the City.) The third time it was generated on Board of Crowded Ships in the Port, which brought in their Passengers in Health, but soon after became very Sickly. I here saw the appearance of Contagion like a Dim Spark which gradually encreased to a Blaze, and soon after burst out into a terrible Flame, carrying Devastation with it, and after continuing two Months was extinguish'd by the profuse Sweats of Tertian Fevers, but this is not the ordinary course of the Contagion, 'tis usually check'd by the cool Evenings in September and dies on the Appearance of an October Frost.

I lately visited an Irish Passenger Vessel, which brought the People perfectly healthy untill they came in our River. I found five of them Ill, and others Unwell, and saw that the Fomes<sup>20</sup> of infection was spreading among them, I therefore ordered the Ship to lay Quarantine, to be well purified with the Steams of Sulphur,

18 As a result of an aroused public opinion, agitated for years by the pressure of such citizens as Dr. Bond and Benjamin Franklin, the Assembly finally passed a law in 1762 providing for the paving and cleansing of Philadelphia's streets, and appointed formulasioners to carry but the program Commissioners to carry out the program. The Commissioners Minutes, 1762-1768, are in the Historical Society of Pennsylvania. 1750/1; Apr. 15, 1762; Statutes at Large of Pennsylvania 6. 196-214; 230-846.

19 So many Palatines arrived with malig-

nant fevers in 1741 that their plight aroused public interest and resulted in 1743 in the establishment of an isolation hospital on a 342 acre tract on Province Island. Statutes

at Large of Pennsylvania 4. 382.

To Foams. Dr. Bond was one of the Port Physicians at this time who were employed by the Province to examine immigrant vessels. See his report on sick Palatines made with Dr. Thomas Graeme in 1754. Pennsylvania Magazine of History and Biography 36(1912) 476.

and with Vinegar, directed the Bedding and Cloathing of the People to be well wash'd and Air'd, before any person should be permitted to Land out of her, after which I advised separating the Sick from the Healthy. This was done by putting twelve in different Rooms in one House, and fourteen in another, out of the City, the conveniences of the two Houses were much the same, in one of them little care was taken of the Sick, who were laid upon the same foul beds, they (contrary to orders) brought on Shore with them; the consequence was, that all the Family catch'd the distemper, and the Landlord Died. In the other my directions were Strictly observed, the Sick had clean Cloaths, and clean Bedding, were well attended and soon Recovered, without doing the least Injury to any person that visited them; which confirms Observations I had often made before, that the Contagion of Malignant Fevers, lies in the Air confined and corrupted, by a neglect of Rags and other filth about the Helpless Sick, and not from their Bodies.

As each of these heads, shall be a Subject of a future Lecture, I shall at present only mention to you further, a few of those Methods which have preserved Individuals from prevailing diseases.

The inhabitants of Hispaniola have found the wearing Flannel Shirts to be a preservative against Intermitting Fevers in that sickly Island, and as that Disease is known to arise principally from inhaling a great Quantity of the Humidity of the Air, I make no doubt 'twould also be of use in preventing them in our low, moist, level Countries.

We know that the Bark of Sassafras contains many Excellent Medicinal Virtues, my Worthy Friend Mr. Peter Franklin<sup>23</sup> told me that he being in the Fall of the Year, in the River Nantikoke in Maryland, and on seeing the People on Shore much afflicted with Intermitting Fevers, advised the Marriners of the Ship to drink freely, by way of prevention, of that Aromatic and Antiseptic Medicine, but cou'd not prevail on more than half the company to do it, and that he and all the others who took it, enjoy'd perfect Health, whilst not a single Person of the rest, escaped a severe attack of the Epedemic Disease, I have known other similar Instances, which 'tis needless to mention, since this is remarkably pertinent.

But I have many reasons to expect that a more agreeable, and equally certain preventative against our Autumnal Fevers, will be found in Sulphures Chalybeate Waters, which may readily be procured in most parts of America, especially where those Diseases are most prevalent, A Spring of this Kind at Gloucester<sup>22</sup> within a few Miles of this Place has been much used of late, and has been so very serviceable to Invalids, it has the appearance of being a valuable conveniency to the City, Persons under various Diseases took Lodgings in the Village the

<sup>1)</sup> Peter Franklin, post-master of Philadelplica and brother of Benjamin Franklin, had died several months before Dr. Bond's Jecture, in July, 1766 Carl Van Dorm, Franklik (New York 1938) 212, 261, 358.

salach of Palasciphia's physicians ap-

pears to have had his favorite mineral spring. Water from the Gloucester spring was bottled over in New Jersey for sale in the city. Carl Bridenburgh, "The Baths and Waterine Places of Colonial America," William and Mary Quarterly, 3rd, ser., 3 (1946) 173-74, 177.

last Season, for the advantage of drinking the Waters at the Fountain head, and though the Fall was more sickly than has been known in the Memory of Man, not one, who went there for health, nor any one of the Inhabitants near the Spaw, who drank it freely, had a touch of the prevailing Disease, whilst a Major part of those that did not, had more the appearance of Ghosts, than living Creatures, there were two Houses, the Habitations of Father and Son, within twenty Feet of each other, the Family of the Father had suffered greatly from Intermitting Fevers the preceding Fall, and some of them continued Invalids 'till the middle of Summer, when they were prevailed on, to take the Waters, after which they daily recovered Health, Bloom, and Vigour, and pass'd the sickly Season without a Complaint, whilst scarcely a person in that of the Son, who did not take them, escaped a severe Illness; 'Tis well known from experience that Mineral Waters are not only the most Palatable, but the most Salutary parts of the Materia Medica. and that the Effect of those which are pure and properly impregnated with chalybeate Principles, Strengthen digestion, brace and counteract the Summers Sun, dilute a thick putrid Bile, (the instrument of Mischief in all Hot Climates) and immediately wash away putrification through the Emuntaties of the Bowels, Skin, or Kidneys, and therefore appear to be natural preservatives against the Effect of an hot, moist, and putrid atmosphere. Whether these Waters will answer my sanguine Expectations or not, must be left to the Decision of Time. If they should be found wanting, that ought not discourage our further pursuit, for since providence has furnish'd every Country with defences for the Human Bodies, against the inclemencies of Heat and Cold, why shou'd we Question whether infinite wisdom and Goodness has made equal Provision against all other natural injuries of our Constitutions; Experience and Reason, encourages us to believe it has, and that the means might be discovered by diligent investigation were our researches' equal to the Task, the above instances are therefore related to convince you, that the prevention of some of the Epedemic diseases of America is not only a laudable and rational Pursuit, but is more within the limits of human precaution than has generally been imagined, and to excite your particular attention to the improvement of this Humane and interesting part of your profession, in which, and all other useful undertakings, I most sincerely wish you Success.

I am now to inform you, Gentlemen, that the Managers and Physicians of the Pennsylvania Hospital, on seeing the great number of you attending the School of Physic in this City, are of opinion, this excellent institution likewise affords a favourable opportunity of farther improvement to you in the practical part of your Profession, and being desirous it should answer all the good purposes intended by the generous Contributors to it, have allotted to me the Task of giving a course of Clinical, and Meteriological Observations in it, which I chearfully undertake (though the season of my Life points our relaxation and retirement, rather than new Incumbrances.<sup>23</sup>) in hopes, that remarks on the many curious Cases that must daily occurr, amongst an Hundred and thirty Sick persons, collected together at one time, may be very instructive to You. I therefore purpose

<sup>23</sup> Dr. Bond was at this time fifty-four years of age.

to meet you at stated times here, and give you the best information in my Power of the nature and treatment of Chronical Diseases, and of the proper management of Ulcers, Wounds and Fractures. I shall shew you all the Opperations of Surgery, and endeavour, from the Experience of Thirty Years, to introduce you to a Familiar acquaintance with the acute Diseases of your own Country, in order to which, I shall put up a compleat Meteriological Apparatus, and endeavour to inform you of all the known Properties of the atmosphere which surrounds us, and the effects it's frequent variations produce on Animal Bodies, and confirm the Doctrine, by an Exact register of the Weather, and of the prevailing Diseases, both here, and in the Neighbouring Provinces, to which I shall add, all the interesting observations which may occurr in private practice, and sincerely wish it may be in my power to do them to your Satisfaction.

I likewise have the Pleasure to inform you, that Doctor Smith,24 has promised to go through a course of experimental Philosophy in the Colledge, for your instruction in Pneumatic's, Hydraulic's, and Mechanic's, which will be of the greatest advantage to a ready comprehension of the Meteriological Lectures, and other parts of your Medicinal Studies, and lay you under the highest obligations to that learned Professor.

Percent of the College of Philadelphia, Fot. 12, 1766; Aug. 24, 1759.

## The Doctor and the Newspaper in the Territory of Michigan, 1817-1837

#### FANNY J. ANDERSON

EWIS CASS was appointed governor of the Territory of Michigan in 1813, and it was largely due to his vision and enterprise that within a decade, a region prostrated by war, was able to look forward to a future of achievement and prosperity. Military roads leading from Detroit soon pierced the interior. Improvement in water transportation facilitated migration from New England and New York to the West. The "Walk-in-the-Water," first steamboat on the Great Lakes, began to carry passengers to Detroit from Buffalo in 1818, and the Erie Canal was opened in 1825.

In 1826, Monroe reported that the population of that village had increased one-third in less than a year, and included one printer, one capitalist, one physician, one tailor, two blacksmiths, four house carpenters, one cooper, one carriage and sleigh maker, one fanning-mill maker, and a considerable number of laborers. A tinman, a hatter, and a gold and silver smith were still wanted. "The village also contains a grist mill with three runs of stones and a sawmill."

By September 1837, the Constantine Republican could announce "To Emigrants and Travellers,"

The Erie and Kalamazoo Railroad is now in full operation between Toledo and Adrian. During the ensuing season, trains of cars will run daily to Adrian, there connecting with a line of stages for the West, Michigan City, Chicago, and the Wisconsin Territory.<sup>2</sup>

Settlers, especially from New York, were rapidly taking up land which had recently been acquired from the Indians by treaty with the national government. These easterners were quick to transplant institutions to which they were accustomed. Towns and villages sprang up along every highway to serve as social and economic centers.

On June 14, 1819, the Governor and Judges of the Territory deemed it necessary to pass "An Act to incorporate medical societies for the purpose of regulating the practice of Physic and Surgery in the Territory of Michigan." This act was adopted from the laws of the State of New York, and placed certain powers in the hands of the Territorial Society; namely, the power to charter county societies, to examine students, and to grant diplomas to practice medicine within the Territory. Fines were

<sup>&</sup>lt;sup>1</sup> Michigan Herald, Detroit, April 26, <sup>2</sup> Constantine Republican, September 13, 1826.

imposed as a penalty for infraction of the law, as well as inability to collect in any court in the Territory payments due from illegal practice.<sup>3</sup> On June 23 and June 30, 1820, the *Detroit Gazette* printed the following notice:

For the information of the public, you are requested to state in your paper, that in conformity to a law regulating the Practice of Physic and Surgery, and for other purposes, a Medical Society has been some time organized in this territory, which promises much future usefulness in prohibiting quackery, in this most important of all professions to the lives and health of our citizens.

The following is a list of the officers and members of the "Medical Society of Michigan," to wit:

Doct. William Brown, President

- " Stephen C. Henry, Vice President
- " John L. Whiting, Secretary
- " Randall S. Rice, Treasurer
- " Ebenezer Hurd
- " William Thompson
- " Henry Conant

Docts. Hurd, Henry and Rice are the censors, or Committee of examination for the current year.

In accordance with the Act, branch societies were chartered in Washtenaw County (June 12, 1827), Oakland County (June 28, 1831), St. Joseph County (June 4, 1835), Macomb County (January 8, 1836), and in Branch County (June 13, 1837). A society for Wayne County was not organized until 1849.

Not all licentiates were members of the Society, since a majority of votes of the membership was necessary. During the territorial period about two hundred physicians were licensed to practice by the parent society, of which 46 were members and two honorary members. The exact number including those licensed by branch societies can not be determined. From 1819 to 1830, the minutes and records of the parent society were carefully entered and credentials of each candidate noted, but interest, after that date, wanted quite evidently, the meetings were fre-

<sup>\*</sup> Laws and Ordinances of the Medical Society of the Territory of Michigan, 1819vi. Manuscript, Medical Science Department, Detroit Public Library; Descrip Gazette, Ausust 14, 1819

<sup>\*</sup>Meeting of Washienaw Medical Society, Emigrant, Ann. Arbor, December 28, 1882; Middigan Wifig. Ann. Arbor, January 15, 1888. Physicians of Oakland County called

to meet at Pontiae, May 14, 1831, to form a County Society, and Macomb Physicians invited to attend, Democratic Free Fress, Detroit, May 12, 1831. Annual meeting of St. Joseph County called at White Pipron, Constrainte Republicae, January 25, March 1, 1837.

Wayne County Medical Society, Record Brok. 1849-91, Manuscript, Button Historical Callection, Datron Public Library.

quently adjourned, because a quorum was not present, and, towards the end of its existence (1851), only names and date of licensure were recorded.

A majority of the licentiates, in the early years, came from New York State, and diplomas were presented from the Medical College of Vermont, the University of Pennsylvania, University of Vermont, Jefferson College, the Medical College of Burlington, Vermont, Fairfield Medical College, Castleton Medical College, Yale University, Medical College of the City of New York, College of Rhode Island, and the College of Physicians and Surgeons, Western District of New York. The only means of medical education was by the old method of apprenticeship, and the medical act provided for a term of three years study "with one or more reputable practitioners." The student must be twenty-one years of age or upward and of good moral character. The minutes of June 1, 1825 contain the announcement, "Dr. Ezra Parke gave notice that Lorenzo D. Webster has commenced reading Physic and Surgery with him."

Article 16 of the By-Laws, which were accepted by the Society on January 11, 1820, provided that "Any member who shall . . . pretend to know and practice with any nostrum may be reprimanded or expelled by two thirds of this society at any stated meeting." Article 17 stipulated that, "Each member shall be expected to communicate annually what have been the prevailing diseases in the circuit of his practice during the preceding year and what mode of treatment has been most successful." It was decided, on January 9, 1827, that members thereafter communicate their experiences in writing, to be entered on the record, and deposited in the archives. Dr. William Beaumont's compliance with this ruling is entered in the minutes of January 8, 1828.

Letter, dated August, 1827, from Dr. William Beaumont of the U. S. Army, an honorary member of this society, accompanied by a report of an interesting case of wounded stomach which occurred in his practice, together with some experiments on the digestive powers of the stomach, was read.

Dentistry did not become a distinct profession until 1840, when the first college of dentistry was organized in Baltimore. It is not unusual, therefore, to find professional announcements similar to that of "Dr. S. Wilson, Physician, Surgeon, and Dentist," in the *Grand River Times* of July 15, 1837.

<sup>&</sup>lt;sup>6</sup> John A. Krout and Dixon R. Fox, Completion of Independence, 1790-1830 (Macmillan, New York 1944) 310.

<sup>&</sup>lt;sup>7</sup> A Dr. Stephen Wilson was licensed by the Territorial Medical Society on August 27, 1836.

As early as 1826, "S. Hardyear, Dentist," inserted the following notice in the Michigan Herald of Detroit.

#### Teeth.

The subscriber has taken a room for a short time at the Steamboar Hotel where he offers to perform all operations in Dentistry. Artificial teeth inserted, in most cases without pain, and warranted to retain their color.

Inserting a tooth \$3,00 Cleaning a set 1,00 Plugging a tooth (with tinfoil) .50

Those who wish can be attended at their homes, without extra expense.8

Dr. James Taylor distributed a dainty, printed missive to prospective patients, announcing his arrival in Detroit, in May, 1830, "to devote a few days to the practice of Dental Surgery." "Dr. Gaylord, Surgeon and Operative Dentist," paid a similar visit to Constantine, in 1837. A. G. W. Smith, M.D., promised "to insert the various kinds of artificial teeth in such a manner as not to be detected." Dr. J. L. Benson, Surgical Dentist, tendered his professional services, and also offered for sale, "Dr. Benson's Celebrated Vegetable Tooth Ache Drops," "Dr. Benson's Dentifrice," and an infallible pill for "the cure of dyspepsia, presented to him by one of the most eminent physicians in Europe, and perfectly free from mercury." In the news section of the Democratic Free Press, over the initials "J. L. B." he pleaded for early dental care, advising weekly or semi-weekly visits to the dentist.<sup>12</sup>

Nor was the traveling optometrist a stranger in the Territory. M. Keyser, lately arrived from Baltimore, on June 5, 1837 was ready to fit the citizens of Detroit with glasses, "which he will warrant to hold their power of vision from 5 to 8 years." He could also furnish large and small telescopes, spy glasses, concave and convex mirrors, magnifying glasses, and "microscopes, capable of magnifying objects 5000 times." <sup>123</sup>

The Detroit Gazette, on May 21, 1819, apprised local physicians of an important meeting, which resulted in the publication of the first edition of the United States Pharmacopoeia,

#### National Pharmacopoeia.

The Middle District Convention of Delegates for the Middle States is to meet at the College of Physicians, Philadelphia, June 15t,, for the purpose of forming a Pharmacopoeia.14

Frontier conditions were complicated by diseases indigenous to a newly settled country, as well as those to which the settlers had been accustomed in their former homes. Malaria, or "fever and ague," was so common that it was frequently called "The Michigan Disease." Contemporary accounts report that "people from the East were sick during the entire summer and early fall. Natives were usually in fair health, but not so well as in New York."15 Even travelers succumbed. General Ellis, on his way to Wisconsin, told of his experiences:

I left New York in June, 1821 . . . . While at Detroit, I had contracted what was then known as "lake fever," a severe sickness, under which I languished for three weeks; but, now convalescing, was considered able to continue the trip. While on the boat between Detroit and Mackinac, I had a relapse, and, becoming worse than ever, I was carried ashore at the latter place in a hopeless condition. Dr. William Beaumont of the U. S. Army was called, and prescribed for me once, and left for Vermont, where he went to take a wife, turning me over to his assistant, a young man of generous impulses, and I was on my feet in a few days.16

On September 10, 1819, the Detroit Gazette reported that many were sick on account of unseasonably warm weather. "Bilious diseases" were most prevalent, and only one person had died during the past month of fever. In the earlier years, Peruvian bark, or cinchona, was advertised as a specific for the disease.17 In 1835, Dr. W. Sumner of Constantine listed quinine among various medicines for sale.18 Of course many nostrums were offered for the fever, but the one most advertised was "Rowand's Tonic Mixture," for which Chapin and Owen were general agents for the territory.19

The Pontiac Courier recorded the results of an injury from a falling tree to a young man near the village of Flint, in Genessee County. This type of accident must have occurred frequently while the forests were

<sup>14</sup> Pharmacopoeia of the United States of America, 1820 (Boston 1820).

<sup>15</sup> David Ward, Autobiography (New York 1912) 37.

<sup>16</sup> General Albert G. Ellis, "Recollections," in Wisconsin Historical Society, Collections 7 (1873-76) 213.

<sup>17</sup> Detroit Gazette, August 22, 1817.

<sup>18</sup> Michigan Statesman, Bronson, October

<sup>16, 1835.

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being cleared for homesteading. Dr. J. A. Hayes amputated one of the patient's legs and the young man was reported to be "fast recovering."20

There were frequent outbreaks of contagious diseases, the cholera epidemics of 1832 and 1834 being long remembered.21 In 1837, physicians in Pontiac were divided into two camps regarding the diagnosis of an epidemic affecting a nearby town. Their differences were aired in the local press. On February 6, those supporting the diagnosis of smallpox addressed the editor of the Pontiac Courier:

There were seventeen cases . . . all arising from the same specific contagion . . . differing only, as being in some, genuine "Smallpox," and in others, "Varioloid," which last is nothing more or less than a variety of the same disease excited in symptoms that have previously been subjected to the infection of "Kine Pox." All of the cases which have come under my observation, have been of that variety described as distinct Smallpox . . . . The same patients have recently and since their recovery from the prevailing epidemic, been vaccinated for kine pox by G. W. Williams and Co. [the opposite camp] and not in one single solitary instance has the infection taken.

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On June 21, 1837, Drs. Sumner and Baldy of Constantine notified the public that "vaccine matter" was available, and anyone wishing to be vaccinated could apply to them.23 J. A. Riley of Detroit announced on February 15, 1840:

Vaccine!! The subscriber has made arrangements for keeping constantly on hand and for sale, Vaccine Matter which he will warrant to be pure and in all cases taken from healthy children. Physicians and others from the country can be furnished with Matter that can be depended upon as first rate and fresh.24

Among the artisans and professional men migrating to the west, there were frequently to be found editors and printers whose services were welcomed in establishing newspapers to answer the commercial needs of the Territory. The Detroit Gazette was founded on July 25, 1817, as a weekly, consisting of four pages, measuring 91/2 by 161/2 inches." Not much attention was given to local events, "news" items being garnered

<sup>20</sup> May 1, 1837.

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<sup>&</sup>lt;sup>20</sup> May 1, 1837.

<sup>21</sup> References to these cholera epidemics have been purposely omitted, because they constitute a story in themselves.

<sup>22</sup> Charles A. Neafie, "Oakland County Physicians One Hundred Years Ago," Pontiac Daily Press, September 18-29, 1931. All four men were licensed by the Territorial

<sup>22</sup> Constantine Republican, June 21, 1837. 23 Spirit of '76 and Theller's Daily Re-publican Advocate, Detroit, February 15.

<sup>25</sup> George Catlin, Story of Detroit (Detroit News, Detroit 1926) 228.

mostly from foreign or eastern papers. Legal advertising and the publication of the Territorial Acts often occupied a page or so, but at least half the space of an issue was given over to commercial advertising. For some time, a portion of each edition was duplicated in French.

The first newspaper outside Detroit was the Michigan Sentinel, published at Monroe in 1825. By 1837, papers were appearing in a number of towns in the counties of the southern half of the lower peninsula. They closely resembled the format of the Detroit Gazette, even though the Constantine Republican was reduced to pamphlet size for several numbers, because a shipment of paper had not arrived on schedule. All were utilitarian in character and appealed primarily to the business man and his interests. They followed the evolution of papers in the older states, appearing first as weeklies, and, as subscribers increased, developing into semi-weeklies, and finally into dailies.

Medical information and advice were frequently given to subscribers. One paper advocated the "use of blood root (sanguinaria canadensis)" as a cure for "polypus in the nose." Another offered an "effectual remedy" for consumption, which would, in time, completely eradicate the disease. "Live temperately, avoid spirituous liquors, wear flannel next the skin, and take, every morning, half a pint of new milk, mixed with a wineglass full of the expressed juice of green hoarhound." On July 19, 1837, the same paper quoted an item on "The Tomato" from the Albany Cultivator:

We are receiving new evidence of the utility of this grateful garden vegetable in preserving health and curing indigestion, and diseases of the liver and lungs . . . . It mitigates and sometimes effectually checks a fit of coughing. It was used in a dried state with a little sugar mixed with it to render it more agreeable to the taste. The writer expresses a conviction that if freely used in July, August, and September, it would prove a complete antidote to bilious fever. 32

The editor of the Michigan Herald, on July 26, 1825, expressed the common fear of hydrophobia, a constant menace of the period.

In Detroit, where is to be found the most numerous and formidable array of dogs in the world, we are daily and hourly in danger of this most terrible of all diseases; and it becomes our citizens to be on their guard, and our physicians to

<sup>&</sup>lt;sup>26</sup> Douglas C. Muttrie, Early Printing in Michigan, with a Bibliography of the Issues of the Michigan Press, 1796-1850 (John Calhoun Club, Chicago 1931) 227-320.

<sup>27</sup> Constantine Republican, December 6,

<sup>13, 1837.

28</sup> Alfred M. Lee, Daily Newspapers in America. The Evolution of a Social Instru-

ment (Macmillan, New York 1937) 58.

29 Michigan Herald, Detroit, May 17,

<sup>30</sup> Constantine Republican, September 13,

<sup>31</sup> See also the account of the tomato in Pickard and Buley, op. cit. (see note 9 above) 282-83.

be prepared for the exigency. It is quite bad enough that our premises are invaded and plundered and our sleep disturbed by this more than Egyptian swarm of dogs; let the hydrophobia get among them, and the danger of our situation can better be imagined than described. We believe that the City Council have passed an ordinance with a view to remedy the evil, at least so far as to prevent the canine race from getting, altogether, the upper hand; but the measure appears not to have been acted upon.32

A unique item appeared in the Oakland Chronicle for October 8, 1830. Unique, because vital staitstics did not appear frequently in the newspapers of the time. No source was given for the "Report of Deaths in the County of Oakland, from January 1st to October 8, 1830." Population-6000, Fever-2, Childbed-2, Affection of the liver-1, By accident-2, Consumption-2.33

"Dry Goods, Groceries, Hardware, Stationery, Drugs and Medicines, Iron, Steel, Shot, Powder, and Lead."34 Such captions were familiar enough in the older thirteen states, toward the end of the eighteenth century, and appeared frequently in the Michigan press between 1817 and 1837. Under the heading of "Drugs and Medicines" are enumerated a number of old nostrums used both in Great Britain and the United States for several centuries.35 It is not inconceivable that some of them appeared in that first advertising supplement announced reluctantly in June 1666 by the London Gazette, "being daily prest to the publication of Books, Medicines, and other things not properly the business of a Paper of Intelligence."36

Before the American Revolution, British traders found the importation of patent medicines into the Colonies a profitable business. Here, they were sold in general stores, apothecary shops, or by pedlars in the hinterland.37 About 1730, Benjamin Franklin opened a store in Philadelphia, where he sold coffee, tea, and patent medicines, and advertised his wares in his own paper, the Pennsylvania Gazette.38

<sup>32</sup> Michigan Herald, Detroit, July 26,

<sup>32</sup> Michigan Herald, Detroit, July 20, 1825.
33 Oakland Chonicle, Pontiac, October 8, 1830. At a later date, 1850-65, mortality rates in Detroit were tabulated from reports of sextons of the city's cemeteries.
34 John R. Williams' Yellow Store, Detroit Gazette, September 5, 1817; Peter J. Desnoyers, ibid., November 7, 1817; Variety Store, Michigan Errigrant, Ann Arbor, December 26, 1833; Constantine Republican, February 1, 1837; Bulkley and Noble, Michigan Sentinel, Monroe, September 12, 1835. 1835.

<sup>35</sup> Detroit Gazette, July 25, August 22, 1817; Monroe Times, July 28, 1836; and many others.

<sup>36</sup> Quoted in Sidney Walton, Thomas Russell, and Frank Grahan, "Advertising," in Encyclopedia Britannica (London 1929) 17. 368.

<sup>&</sup>lt;sup>27</sup> Cedric Larson, "Patent Medicine Advertising and the Early American Press," Journalism Quarterly 14 (1937) 334.

<sup>38</sup> Edward Kremers and George Urdang, History of Pharmacy (J. B. Lippincott, Philadelphia 1940) 140-41.

scription was published in the Medical and Philosophical Journal and Review, because of its efficacy, and was widely used by physicians in the vicinity. William Swaim, a bookbinder, was then a patient under the care of Dr. N. J. Quackenboss, who prescribed the medicine, with excellent results. Swaim obtained the prescription from the physician, and went to Philadelphia, where he manufactured it, selling it under the trade name of "Swaim's Panacea," for five dollars a bottle. The investigators discovered that corrosive sublimate had been added to the original preparation, causing the profuse salivation often following its use.50

Swaim's tactics rivalled those of any modern promoter. The nostrum was widely advertised.<sup>51</sup> Dr. William Price, an official of the Philadelphia Alms House, was induced to try out the panacea on patients of that institution, and was sent to England to introduce it there. Unwary physicians were either hoodwinked into giving testimonials as to its beneficial results, or their signatures were used without their knowledge.52

As late as 1912, the American Medical Association explained the difficulty of distinguishing between "patent medicines" and "ethical proprietaries." It was not unusual for a nostrum first to be exploited only to the medical profession as an "ethical proprietary." After a sufficient number of testimonials had been received from unthinking physicians, promoters of nostrums advertised their wares to the public as "patent medicines."53 To guard against any contingency of the kind, the Michigan State Medical Society, in 1913, ruled that the advertising pages of its Journal must thereafter comply with the Reports of the Council on Pharmacy and Chemistry of the American Medical Association.54

In their report on "Secret Remedies," the New York Medical Society included "Swaim's Panacea," "Potter's Catholicon," and "Shinn's Panacea," declaring them to be essentially the same.55 Whether or not there was any connection between Shinn and Swaim is not clear. Perhaps Swaim's popularity was waning, or he saw an opportunity to lower his

50 "Secret Remedies. Report of the Medical Society of the City of New York on Nostrums or Secret Remedies," Amer. Jour. Med. Sci. 1(1827-28) 248-49; "Report of the Philadelphia Medical Society on Swaim's Panacea," ibid. 1:(1827-28) 483.

51 Pickard and Buley, op. cit. (see note 9, above) 273, 274; Dr. Justin Rice's General Store, Michigan Herald, Detroit, December 5, 1827; Michigan Sentinel, Monroe, Octo-

ber 28, 1825, September 12, 1835; Monroe Times, July 28, 1836. 52 Journal of Health 2(1831) 302, 337, 338; "Report of the Philadelphia Medical Society," Amer. Jour. Med. Sci. 1 (1827-

<sup>28) 483-86.

53</sup> American Medical Association, Nostrums and Quackery (Chicago 1912) 7.

54 "Editorial," Michigan State Medical Society Journal 12 (1913) 118.

55 Amer. Jour. Med. Sci. 1 (1827-28) 248.

prices without jeopardizing his original product. The following advertisement is an example of the masterly methods Swaim, or Shinn, used in the West,<sup>56</sup> Shinn's Panacea

The subscriber, having discovered the composition of Swaim's celebrated panacea, has now a supply on hand for sale. He has reduced the price from \$3.50 to \$2.50, or by the dozen — \$24.

All charitable institutions in the United States and the poor will be supplied

gratis.

If the citizens of the principal towns will appoint an agent to order and distribute this medicine to the poor, it will be supplied.

This medicine is celebrated for the cure of the following diseases: scrofula, or King's Evil, ulcerated or putrid sore throat, long standing rheumatic affections, cutaneous diseases of the bones, and all cases generally of an ulcerous character, and chronic diseases, generally arising in debilitated constitutions, but more especially from syphilis, or affections arising therefrom, ulcers arising in the larynx, etc., and that dreadful disease occasioned by a long and excessive use of mercury, etc. It is also useful in diseases of the liver.

The manufacturer of a nostrum known as "The Druid's Pills," composed of flour, lard, and weak tobacco tea, related that "he lived magnificently from the profits of his invention," and sold his copyright for a sum "that would open the eyes of any plodding every day trader." We can only surmise that Shinn, or Swaim, derived comparable returns from his enterprise.

During the eighteenth century, many of the old medicines were to be found in the apothecary shops kept by physicians, as an additional source of income to their regular practice. Tea, coffee, and spices, regarded at that time as luxuries, were often added to the stock in trade. William Douglas, a Boston physician, declared there were fourteen of these shops in his native city, many of which were advertised in local newspapers. Dr. Zabdiel Boylston advertised capers and snuff as well as medicines in the Boston Gazette, in 1723, 1724, and 1725. In 1776, in the New York Gazette and Weekly Mercury, Dr. Atwood announced his stock of "wines, spices, Turlington's balsam, Bateman's drops, Haerlem oil, British oil, Anderson's pills, Hooper's pills, Lockyer's pills, James's fever powders, Hill's balsam of honey, a paste for preserving teeth and gums, Greenough's tincture for the teeth, Boerhagg's balsam." Daniel Drake

sa Michigan Sensinel, Monroe, October 28, 1825.

57 Jones, op. cit. (see note 44, 2bove)

<sup>371-73.

88</sup> Kremers and Urdang, op. cit. (see note 38, above) 138-39, 163.

<sup>&</sup>lt;sup>59</sup> Ibid. 139; Larson, op. cit. (see note 37, above) 334.

<sup>60</sup> Maurice B. Gordon, "Medicine in Colonial New Jersey and Adjacent Areas," Bull. Hist. Med. 17(1945) 51.

was familiar with similar shops in his youth, and, later in his career. opened one himself. where he, too, sold patent medicines and drugs.61

It is not surprising, therefore, to find an announcement in the first issue of the Detroit Gazette by Dr. John L. Whiting, to the effect that "he has a small but good assortment of DRUGS AND MEDICINES. which he offers at a very moderate advance." A postscript adds, "he will punctually attend to any calls with which he may be honored either in the practice of Medicine or Surgery."62 A later insertion by Dr. Whiting. on October 24, 1817, gives some idea of the medicines in use by the orthodox physician of the day: "Aloes, arnatto, antimony, crude arsenic, alkohol, juniper berries, bals. copaiva, borax, camphor, calomel, cassia, fol. digitalis, ivory black, liquorice ball, verdigris, pearl ashes, and brimstone."63

On October 16, 1835, Dr. Watson Sumner of Constantine offered "a fresh assortment of genuine articles of medicine. Physicians and others may be supplied on liberal terms."64 A year later, Dr. Sumner and Dr. Peter Baldy "concluded a partnership in the business of their profession," and announced their intention of "keeping constantly for sale a general assortment of selected and genuine articles of medicine with which they will supply physicians and others."65 Dr. David L. Porter, of Pontiac, imported drugs and medicines from New York for sale in his "Druggist Store."66

The fact that so many physicians entered into other activities would indicate that the profession of medicine was not lucrative enough in itself to support them entirely. The pronouncement of the Michigan Herald, on September 20, 1825, shows the economic needs of the region at the time, as well as the temper of the people:

The demand for mechanic labor, and labor of every description connected with building is greater than can be supplied, which has the effect of enhancing wages,

61 Pickard and Buley, op. cit. 128, 273.
62 Detroit Gazette, July 25, 1817. John
L. Whiting (1793-1880), who came from
Hudson, New York in 1816, was prominent
in Territorial affairs, charter member of
the Territorial Medical Society, and later entered business.

63 Detroit Gazette, October 24, 1817. Aloes, antimony, quassia, arsenic, calomel, and digitalis included in the Pharmacopoeia of London, compiled by the College of Physicians of London at intervals from 1618 to 1851 (10th ed.) The first U. S. Pharma-

copoeia was published in 1820. 61 Constantine Republican, October 16.

1835.

65 Ibid., July 13, 1836. Both Drs. Sumner and Baldy were licensed by the Territorial Medical Society on July 16, 1836.

65 Oakland Chronicle, Pontiac, June 1, 1830. David L. Porter (1808—) was born in Waterford, N. Y., graduated from Medical College, Burlington, Vt., licensed by Territorial Medical Society, October 23, 1829, became member of Medical Society, Ianuary 12, 1830.

and retarding the improvement of the city. Carpenters, Masons, Brick-makers, and common laborers from abroad, will undoubtedly for some years to come, find employment and good wages, not only in Detroit, but in the interior of the territory. Every industrious mechanic, who comes here from abroad, is a valuable acquisition and is of more immediate utility than a shipload of lawyers and doctors.

Abraham Edwards, Randall'S. Rice, John Truax, Marshall Chapin, Philip Brigham, and Alonzo Platt were proprietors of general stores, which carried "Drugs and Medicines" as an important department in their establishments.<sup>67</sup> Dr. Edward A. Theller, "wholesale grocer and provision merchant," established his grocery business on Atwater Street. A hint of the present day drug store appeared in his advertisement of January 25, 1837:

. . . Also at 119 Jefferson Ave., wholesale and retail. A large and well-selected assortment of genuine drugs, medicines, chemicals, patent medicines, perfumery, etc., which he offers on as favorable terms as can be had in the city. Orders from the country supplied on the shortest notice.68

Six months later, he announced his association with Dr. Lewis F. Starkey, "a practical surgeon," "one of the firm to be found at all times at the Drugstore of Dr. Theller." Surgical instruments were also sold.69

Not only did physicians stock patent medicines in their shops and general stores but they also acted as local agents for them. A typical example . was "Dr Bloodgood's Elixir of Health," for which the agent was Dr. Harry Conant of Monroe. To In addition to numerous miraculous powers claimed for the nostrum, its manufacturer, H. Eastman of Zanesville,

67 Abraham Edwards, Detroit Gazette, July 23, 1819.

Randall S. Rice (1793-1860), charter member of Territorial Medical Society; De-

John Truax, introductory letter from Schenectady, N. Y. to John R. Williams, July 28, 1826, stated he intended to practice medicine and open a drug store (John R. Williams, Patrice 1720, 1824) member of medicine and open a drug store (Jonn R. Williams, Papers, 1782-1850), member of Territorial Medical Society June 12, 1827; Democratic Free Press, Detroit, May 26, June 16, June 30, July 7, 1831.

Marshall Chapin (1798-1838), admitted to membership in Territorial Medical Society, June 12, 1821; Detroit Evening Spectator and Literary Gazette, January 25, 1821

ciety, June 12, 1821; Detroit Evening Spectator and Literary Gazette, January 25, 1837. Philip Brigham, said to have worked with Dr. Valentine Mott of New York City in 1813; not identifiable in records of Territorial Medical Society; Michigan Emigrant, Ann Arbor, December 26, 1833.

Alonzo Platt, Michigan Emigrant, Ann-Arbor, December 26, 1833; Secretary of

Washtenaw Medical Society,

Washtenaw Medical Society, Michigan Whig, Ann Arbor, January 15, 1835.

68 E. A. Theller (1804-59), Irish physician, author of Canada, 1837-38 (Philadelphia 1841), depicting experiences in Patriot War; also published Spirit of '76 and Theller's Daily Republican, 1839-40. One issue, February 15, 1840, on file in the Burton Historical Collection, contains a number of patent medicine advertisements: licensed of patent medicine advertisements; licensed by Territorial Medical Society, September

by Territorial Medical Society, September 28, 1835.

L. F. Starkey ( -1848), licensed May 10, 1836, called "eye-specialist," in Friend Palmer, Early Days in Detroit (Hunt and June, Detroit 1906) 893.

Detroit Evening Spectator and Literary Gazette, January 25, 1837; Detroit Free Press, June 6, 1837.

69 Detroit Free Press, June 5, 1837.

70 Michigan Sentinel, Monroe, September 12, 1835. Dr. Harry Conant was elected a member of Territorial Medical Society, June 15, 1820.

Ohio, asserted, "It is a sovereign remedy in all those complaints for which Dr. Hooper's Female Pills are recommended --- removing all obstructions and restoring bloom to the sickly and sallow cheek and plumpness to the meagre."71 A "Chemical Plaster," prepared by E. Dean, Drug and Medical Store, Westfield, Chautauqua County, New York, was sold by Dr. Conant, Chapin and Owen of Detroit, and Brigham and Platt of Ann Arbor.72 In addition to expounding the marvelous qualities of his panacea, E. Dean offered some helpful medical advice.

In case of severe inflammation, bleeding and a dose or two of gentle Physic may be necessary, and the plaster wants changing or a thin coat added every 24 hours. In case of fever sore, daily use of syrup made of the Burdock Root for some weeks would be helpful and important. . . . It will be found highly useful for drafts on the feet, also for strains and bruises on horses.78

Drs. Sumner and Baldy sold "Dr. Phinney's Anti-Dyspeptic or Bilious Pills," which seemingly covered the gamut of human ills.74

Merchandise, including medicines, was "sold at reduced prices for cash," or, "all kinds of produce taken in payment, cash for wheat, hides, skins, furs, and peltries of all descriptions."75 Newpaper publishers accepted "most kinds of produce in payment at cash prices," and were forced to use their own columns to plead for payments due.76

Physicians frequently resorted to the newspaper in an effort to secure their own long overdue accounts. Dr. Cyril Nichols of Dexter pleaded that, "the precarious state of the subscriber's health obliges him to call on all persons indebted to him to arrange immediately the payment of all Notes and accounts up to the first day of July last."77 A note of sarcasm crept into a plea for payment, on July 28, 1836, by Dr. J. V. D. Sutphin of Tremainville.

#### Cash to loan.

I want some of the above article to loan my friends, pay debts, etc., etc., and would politely intimate to those indebted to me, that all accounts not settled by

<sup>&</sup>lt;sup>71</sup> Patent for "John Hooper's Female Pills" granted in 1743 to John Hooper, apothecary and man midwife of Reading, England (Wootton, op. cit. 2. 163-64). Advertised as a "Genuine Patent Medicine" in Pennsylvania Evening Post, 1784 (Lee, op. cit. 58; Larson, op. cit. 337).

<sup>72</sup> Michigan Sentinel, Monroe June 14, 1834; Michigan Whig, Ann Arbor, January 15, 1835; Constitutionalist, Adrian, November 15, 1837.

<sup>73</sup> Michigan Whig, Ann Arbor, January

<sup>76</sup> Michigan wing, Mill Millor, January 15, 1835.
74 Constantine Republican, June 14, 1837.
75 Detroit Gazette, November 7, 1817;
Emigrant, Ann Arbor, October 3, 1832.
76 Michigan Sentinel, Monroe, October 28, 1825, June 18, 1831.
77 Emigrant, Ann Arbor, December 28, 1831.
78 Territorial Medical Society, after examinant Territorial Medical Society, after examination of the society and the society after examination of the society and the society after examination of the society and t

gan Territorial Medical Society, after examination, June 13, 1820, and admitted to membership.

the 1st of August will be found in the hands of Horace Thatcher, Esq., who will inform them of the fact.<sup>78</sup>

Although a bank had been chartered in the Territory in 1817, with authority to issue notes, redeemable on demand, currency was not plentiful. "Notes," or bills of exchange, were in wide use. On December 23, 1830, Dr. Randall S. Rice of Detroit gave his note to Mr. G. Chesne,

Please to let the bearer have 200# of Hay and I will account to you for same.

December 23, 1830

R. S. Rice<sup>78</sup>

Warnings about such transactions are frequently found in newspapers of the period.

The public are hereby cautioned against purchasing a note of between eighty and ninety dollars bearing date either August or September -th, 1836, given by Elijah Smith to Dr. —— Cowee; I not having received the value of said note.

Elijah Smith Flint, February 14, 1837<sup>80</sup>

The press of the Territory reflects the activities of physicians, professional and otherwise, sometimes in contrast to present-day ethics. The general public were acquainted with their abilities by means of "professional cards," inserted in the local papers. Dr. Douglass Houghton's simple "Physician and Surgeon" was a common example. A succinct announcement appeared in the Michigan Whig of Ann Arbor, on February 26, 1835:

#### Dr. Gurley

Late of Ontario County, New York. If you have need, try him-if you like him, retain him-if not, dismiss him.

Dr. John B. Chamberlain reminded readers of the *Herald* in Amherstburg and Sandwich, Ontario, of his Canadian training and his licensure before the Royal Board of Physicians in 1809. <sup>82</sup> He contributed a series of three

<sup>18</sup> Monroe Times, July 28, 1836. Dr. Sutphin was a member of the Territorial Medical Society, licensed June 13, 1826, credentials from Medical College of Vermont and College of Physicians and Surgeons, Western District, New York. He was one of the few medical men in the Territory who made contributions to medical literature. "Inquiries and Observations on the Bilious Remitting Fevers of Michigan," N. Y. Med. Jour. 1 (November-February 1830-31) 81-95, 276-302; 2 (May-August 1831) 35-34.

76-302; 2(May-August 1831) 35-5479 Arthur M. Schlesinger, Jr., Age of Jackson (Little, Brown, Boston 1945) 527; Chene Family, Papers, 1830-31, Manuscript, Burton Historical Collection.

so Pontiac Courier, March 13, 1837. A

William Cowee was licensed by the territorial Medical Society on September 9, 1833, from New York.

81 Democratic Free Press, Detroit, January 2, 1833. Douglass Houghton (1809-45), licensed November 6, 1832 by Territorial Medical Society, first state geologist, met his death while on a scientific mission in Lake Superior.

82 Michigan Herald, Detroit, January 10, 1827. Dr. Chamberlain applied for admission to the Territorial Medical Society on June 13, 1820. Minutes of the Society state, "To be postponed to next meeting." There is no further entry regarding Dr. Chamberlain.

articles, entitled "Remarks on Calomel" to the same paper. 83 Drs. John Hendree and Thomas B. Clarke had offices in general stores maintaining drug departments.<sup>84</sup> Dr. William McCoskry announced his removal to "the House of Major Whipple, lately occupied by Dr. Day."85

Dr. Abraham Edwards, who first came to Detroit in charge of the Medical Department of General Hull's Army in 1812, was engaged in numerous financial enterprises. The Detroit Gazette of July 23, 1819, carried his advertisement for his coopering business; on February 25, 1820, he is listed as an auctioneer. His general store was featured in the commercial section of the issue of June 16,1820. On September 8, his "Boot and Shoe Manufactory" notice carried a postscript, "The coopering business is still carried on at the old stand." Dr. Samuel Denton of Ann Arbor was interested in the promotion of "Oleum Zeae," or Corn Oil, produced by "a recent improvement in the art of distilling the meal of Maize, or Indian Corn; by which a quantity of beautiful and valuable oil is procured, the whiskey greatly increased in quantity and improved in its quality." Dr. A. L. Hays gave a testimonial in the Emigrant, stating that it was an important acquisition to the Materia Medica as a cathartic and substitute for olive oil.86

Dr. Denton "informed the people of Washtenaw and the neighboring counties, that he has procured a complete assortment of surgical instruments and preparations among which are amputating, trephining, obstetrick, and cupping instruments, and improved splints of different kinds for fractures, Electric Machines, ETC., and is ready to attend to all calls in the surgical department of his profession."87 On October 3, 1832, he formed a partnership with Philip Brigham in the same specialty.88 Dr. Ezekiel Webb supplemented his profession with an appointment as postmaster of Farmington, and sponsored "Pyroligneous acid, or Essence of Smoke for preserving beef, pork, hams and fish, Sold at the Druggist

<sup>85</sup> William McCoskry (1763-1831) first came to Detroit as a surgeon with General Anthony Wayne's Army. According to rec-ords of the Territorial Medical Society, he

<sup>83</sup> Michigan Herald, Detroit, January 24, February 14, March 14, 1827.
84 Ibid., July 12, May 3, 1826. John Hendree, Licensed June 30, 1826, diploma from University of Pennsylvania. Thomas B. Clarke, licensed June 13, 1826, certificate from Medical Society of New York City. Both members of the Territorial Medical Society. Society.

was not licensed and never a member of the Society. His ledgers are in the Manuscript Collection of the Burton Historical Collec-

For Sylvester Day ( -1851), see Harvey E. Brown, Medical Department of the United States Army from 1775 to 1873 (Washington 1873) 273.

86 Emigrant, Ann Arbor, December 30, 1829. Andrew Hays (1803-64) was licensed

May 21, 1829. 87 Ibid., April 13, 1831. 88 Ibid., October 3, 1832.

store of M. Chapin & Co." The product was probably his own invention.59

As communities grew and governmental machinery was set up, the need of medical services in some departments became necessary. Dr. John L. Whiting received the sum of \$63.13 "for attendance and medicines for prisoners of Wayne County from July 4, 1818 to July 12, 1820."90 The method of choosing a physician for the county service is disclosed with the announcement:

Sealed proposals will be received by the subscriber until the 23rd inst. for all medicines, medical and surgical services necessary for the prisoners who are, or may be, confined in the jail of the County of Wayne and for the county paupers belonging to the townships of Detroit, Hamtramck, and Springwells. The whole to be included in one contract to be made for the term of one year commencing on 23 November, 1831. By order of the board of Supervisors of the County of Wayne.

I. M. Wilson, Sheriff<sup>91</sup>

Several of the Territory's leading citizens served in the United States Medical Department. Dr. Zina Pitcher (1797-1872), who distinguished himself in the field of education, as well as in medicine, was stationed, at various times, at army posts along the border - Saginaw, Detroit, Fort Brady, and Fort Gratiot. He resigned from the service in 1836, to go into private practice in Detroit.

William Beaumont, of course, is the classical example of the post surgeon assigned to the frontier posts of Michigan. On June 23, 1820, the Detroit Gazette reported:

Last Wednesday morning, the Steam Boat Walk-in-the-Water left this place for Mackinac. She has a cargo of goods for the American Fur Co. . . . and Dr. Beaumont among the passengers.92

For a period of fifty years after the reorganization of the United States Army Medical Corps, in 1818, the weather observations of medical officers stationed at military posts constituted the only statistics of the kind.92 It is significant, therefore, to find an item in the Michigan Herald of Detroit, January 24, 1827, recording subzero temperatures for the week of January 15:

ber 10, 1831.

92 Detroit Gazette, June 23, 1820.
93 Merritte W. Ireland, "Medical Corps of the Army and Scientific Medicine," in Mayo Foundation and Universities of Minnesota, Wisconsin, Iowa, and the Des Moines Academy of Medicine, Lectures on the History of Medicine, 1926-32 (W. B. Saunders, Philadelphia 1933) 441. Philadelphia 1933) 441.

<sup>89</sup> Michigan Herald, Detroit, November
29, 1823, February 21, 1826.
90 "Abstract of Accounts Audited and Allowed by the Commissioners of the County of Wayne, from July 4, 1818 to July 12, 1820," Detroit Gazette, September 1, 1820.

\*\*Democratic Free Press, Detroit, Novem-

The Weather. We are indebted to Dr. Henry for the following observations on the state of the thermometer during the last week, shewing degrees of cold unusual to this climate.

In 1822, 1503 residents were liable for militia duty in Michigan. They were divided into two brigades, organized by counties. Col. John R. Williams was in command of the first brigade, of which Dr. John L. Whiting had been commissioned as surgeon in 1818.94 Only a medical certificate could excuse a citizen from service. Dr. Whiting, on November 8, 1831, certified that Mr. Gabriel Chene had a rupture of the left side, which exonerated him from the performance of military duty.95

Since Detroit was the capital of the Territory, the territorial machinery of government was centered there, and physicians of the city had a greater opportunity to serve the community in a civil capacity than those in the interior. As early as 1817 Judge Augustus Woodward had devised an ambitious plan for an educational system, which was established by Act of the Legislative Council. Two units were the "University of Michigania" and the "Classical Academy." Dr. Abraham Edwards was appointed treasurer of the former institution and Dr. John L. Whiting register. Dr. Whiting received \$18.75 per year for his services. Among the trustees and "visitors" of the Classical Academy were the names of William Brown, Sylvester Day, Abraham Edwards, and John L. Whiting. 96

In 1820, Lemuel Shattuck, a native of Massachusetts, was in charge of the Classical Academy. On October 20, he announced in the pages of the *Detroit Gazette*,

#### An Evening School

Is opened at the Academy, from 6 till 9 o'clock, on the evenings of Monday, Wednesday, and Friday; where the common branches of an English education and the elements of mathematics are taught. Terms will be made known by applying to the subscriber at the Academy.

Shattuck distinguished himself in later years by drafting a document of historical importance in the field of public health, The Report of a General Plan for the Promotion of Public and Personal Health, Devised, Prepared, and Recommended by the Commissioners Appointed under a Resolve of the Legislature of Massachusetts, Relating to a Sanitary Survey

94 John L. Whiting (1793-1880), in Clarence M. Burton, Physicians of Old Detroit, Typescript, Burton Historical Collection. Michigan Herald, Detroit, March 14, 1826, "Abstract of Returns of the Militia

of the United States with Date of Returns as Transmitted by the Secretary of War."

Michigan Herald, Detroit, May 17, 1826.

Schene Family, Papers, 1830-31, Manuscript, Burton Historical Collection.

98 Detroit Gazette, September 19, 1817.

of the State. Presented April 25, 1850.97 This memorable paper led to the creation of the Massachusetts State Board of Health nineteen years later.

Abraham Edwards served as president of the Legislative Council of the Territory, and Randall Rice acted as clerk.95 From July 4, 1818 to July 12, 1820, William Brown and Edwards were commissioners for Wayne County, each receiving \$45 for his services, for the period specified.99

Citizens of the Territory took their politics very seriously. When the population had increased enough to permit Michigan to send a delegate to Congress, the election campaign showed none of the apathy usually displayed today at election time. At one meeting of citizens, held in Detroit, to promote the election of William Woodbridge, Dr. William Brown presided as chairman, and Drs. S. C. Henry, John L. Whiting, and James Witherell took an active part. Edwards was chairman of a similar meeting opposing Woodbridge.100

The territorial period of Michigan coincided with an era in the nation's history, when the United States was expanding not only physically, but industrially as well, necessitating many adjustments and extending political ideas regarding the dignity and freedom of the individual into the social and economic spheres of life.101 As the nineteenth century progressed, the need for certain changes in all these spheres became more evident, even in the less populated and newly settled regions of the country.102 The consensus of public opinion was in favor of discussion and education, to solve problems of an intellectual plane. To this end, a multitude of societies were organized in Michigan.

The "Lyceum of Detroit" was formed for "improvement in public speaking," with the redoubtable Judge Augustus Woodward, as president and Dr. John L. Whiting as treasurer. 103 The society, in 1820, requested a report of the account current, January 1, 1818 to February 1, 1820, from the treasurer of the Territory. 104 Was this a forerunner of the

<sup>97 (</sup>Boston 1850). Lemuel Shattuck (1793-1859), born Ashby, Massachusetts, taught school in the East before coming to Michigan. He organized the first Sunday School in Michigan and introduced modern methods into taking of the census in Massa-chusetts and the United States.

98 Michigan Herald, Detroit, November 8,

<sup>&</sup>lt;sup>90</sup> Detroit Gazette, September 1, 1820, "Abstract of Accounts Audited and Allowed by the Commissioners of the County of Wayne, July 4, 1818 to July 12, 1820.

<sup>100</sup> Detroit Gazette. August 20, August 27, September 3, 1819. James Witherell (1759-1858), practiced medicine in Fairborn, Vt., appointed Judge of the Michigan Territory in 1808.

<sup>101</sup> Schlesinger, op. cit. (see note 79,

<sup>&</sup>lt;sup>102</sup> Richard H. Shryock, "Public Relations of the Medical Profession in Great Britain and the United States," Ann. Med. Hist.

N. S. 2(1930) 317.
103 Detroit Gazette. January 16, 1818
104 Ibid., September 8, 1820.

"muck-racking" era of a later day? The "Mechanics' Society" was in existence in 1820.<sup>105</sup> The "Young Men's Society" was enjoying a course of lectures on "Galvanism and Electromagnetism," delivered by A. R. Terry, M.D.<sup>106</sup> A book, carrying the inscription of the society, written by a distinguished physician of the time, is a surviving example of their scientific interest. An Inquiry into the Claims of Dr. William Harvey to the Discovery of the Circulation of the Blood; with a More Equitable Retrospect of that Event, by John Redman Coxe.<sup>107</sup>

The "Moral or Humane Society" was organized on December 29, 1817 by the Rev. John Monteith. Its objects were:

to remove, as far as possible, the cause of poverty and disease, to secure the gift of the benevolent from prodigality, and to afford relief to the poor and distressed . . . . Detroit is to be divided into Wards or districts with a commissioner for each . . . to use constant vigilance so that there shall be no disorderly house, to suppress every species of vice, especially intemperance, gambling, profane language, violating the Lord's Day by business or amusement — also to ascertain and report any children, who through poverty may be destitute of education . . . to ascertain cases of sickness and distress, to endeavor to procure medical and religious aid. 108

There were a number of religious societies, among them, "The Sunday School Association," formed in September, 1818, and the "Detroit Bible Society," of which Abraham Edwards and John Whiting were "managers." A "Camp Meeting," held at Bloomfield on August 16, 1827; was an example of an essentially American social institution. 110

Because Detroit and Michigan physicians played an important part in the Underground Railroad, it is interesting to note that the "Michigan State Anti-Slavery Society" was organized on June 28, 1836. Dr. A. L. Porter of Detroit was elected recording secretary in 1837, and Dr. Edwin W. Cowles was second vice-president of the auxiliary society of Detroit, when it was established in 1837.<sup>111</sup>

The Temperance Movement, inspired by the work of Dr. Benjamin Rush, gained in momentum with the founding of the "American Temper-

105 Detroit Gazette, January 14, 1820. A Mechanics Union of Trade Associations, in Philadelphia, sponsored the first workingmen's party. Mechanics were interested in abolishing imprisonment for debt, but this was not accomplished until 1832 (Schlesinger, op. cit. 32, 134, 136).

106 Detroit Evening Spectator and Literary Gazette, February 5, 1827.

Gazette, February 5, 1837.
107 Philadelphia 1834 (Medical Science

Department, Detroit Public Library).

108 Detroit Gazette, January 9, 1818.

109 Ibid., November 14, 1817, January 7,

110 Michigan Herald, Detroit, August 8,

1827.

111 Detroit Free Press, June 5, June 12, 1837; Pontiac Courier, May 8, June 19, 1837; Detroit Evening Spectator, April 26, 1837.

ance Society," in 1826.112 The National Convention, held at Philadelphia, May 24-27, 1833, declared that "the traffic in the use of ardent spirits is morally wrong," and that it sought "no affiliation with any party or other plan of benevolence." The subject of slavery was brought up, but it was decided that this controversial subject should not enter the discussion.113 Judging from the newspapers, the full impact of the movement struck Michigan in 1830 and 1831. Temperance societies were formed in Ann Arbor, Dexter, Oakland County, Auburn, Ypsilanti, Panama, Bloomfield, Pontiac Township, and Detroit.114

Governor Cass was an ardent advocate of the cause, and addressed the Detroit Society, on November 25, 1830.115 Dr. I. W. Richardson emphasized the purely ethical principles of temperance in a letter to the editor of the Pontiac Courier, on April 10, 1837. At the annual meeting of the Oakland County Temperance Society, in 1837, the question of "the adoption of the total abstinence pledge by members was to be discussed."116

The various reform movements had their effect on the personal life and health of the populace. The hygiene cult, fostered by Sylvester Graham (1794-1851), an ordained Presbyterian minister, flourished from 1830 to 1860. Graham advocated extending the principles of Temperance Reform to include reform in diet, exercise, clothing, and personal hygiene generally. Besides lecturing, mostly in the East, he wrote a number of books and pamphlets.11: The Monroe Times of May 25, 1837 quoted a definition of "Grahamism" from a Boston paper, to wit: "The original founder of Grahamism was Nebuchadnezzer who eat grass like an ox." The Marshall Times, however, was influenced enough by the new propaganda to advocate frequent bathing.115

Graham's doctrines undoubtedly appealed to women, and were probably influential in producing the variety of magazines and books devoted to their health and beauty. Birdsall and Roosevelt, booksellers of Pontiac, advertised, under the caption "New Books," Ladies' Medical Book, Young Ladies Own Book, Young Wife's Book, Mother's Own Book. 119

<sup>112</sup> Krout and Fox, op. cit. (see note 6,

above) 263.

113 Journal of Health 4(1835) 295-307.

114 Emigrant, Ann Arbor, December 22, 1829, January 20, 1830, February 23, March 23, 1831; Oakland Chronicle, Pontiac, December 24, 1831; Oakland Chronicle, Pontiac, December 25, 1831; Oakland Chronicle, Pontiac, December 26, 1831; cember 3, 17, 1830, February 25, 1831; Pontiac Courier, February 6, 1837, 115 Oalland Chroniele, Pontiac, December

<sup>3, 1830.</sup> 116 Pantiac Courier, February 20, 1837. 117 Selvester Graham, Treatise on Bread

and Bread Making (Boston 1837); Lectures on the Science of Human Life (2 vols., Boston 1839); Philosophy of Sacred History Considered in Relation to Human Aliment and the Wines of Scripture (New York 1855); Pickard and Buley, op. cis. (see note 9, above) 222; Richard H. Shryock, Development of Modern Medicine (University of Pennsylvania Press, Philadelphia 1936)

<sup>247-48.</sup> 118 August 11, 1857. 119 Pontiae Courier, April 3, 1837.

A "best seller" in the Territory seems to have been The Old World and the New, or a Journal of Reflections and Observations on a Tour in Europe, by the Rev. Orville Dewey. A review of this book quoted an excerpt, in which the Rev. Mr. Dewey declared, "[English girls] do not reason as our girls do, that to be pretty and 'interesting,' they must be livid, pale, and consumptive." 121

The Oakland Chonicle, on October 15, 1830, thundered a dire warning at young ladies, probably totally unheeded:

Stays. When will young ladies learn their own interest and discard this relique of barbarity from their dress . . . . Side ache, heart-ache and sorrow, pain and anguish inevitably follow this foolish, fool-hardy practice till at last consumption seizes upon the emaciated form and the grave has an early victim. Young ladies, abandon your stays. 122

Subscriptions to the Journal of Health were accepted at the office of the Democratic Free Press, in Detroit. This journal appeared monthly from September 1829 to August 1833, at an annual subscription price of \$1.25. It was conducted by an "Association of Physicians," and published in Philadelphia by Henry H. Porter, who also published the "Family Library of Health." In 1832, it was transferred to Samuel C. Atkinson, publisher of the Saturday Evening Post. At the time of its demise, the editors were Drs. John Bell and Francis Condie. Its prospectus best described its purpose:

The Journal of Health will on all occasions be found in opposition to empiricism; whether it be in the form of nursery gossip, mendacious reports of nostrum makers and vendors, or recommendations of even scientifically compounded prescriptions, without the special direction of a physician—the only competent judge in the individual case of disease under his care.... The Journal of Health, it is hoped, will engage the attention and favor of the female reader whose amusement and instruction shall consantly be kept in view during the prosecution of the work. 123

Its contents included articles on calisthenics (with delightful illustrations), diet, temperance, and public health.

Well might the *Journal* warn its readers against empirics. Under "Systems of Quackery," it enumerated the "Morisonian, Thompsonian, Hygienic [sic], Botanic, bone setters, and Homeopathists." Scientific

<sup>120</sup> Snow and Fisk, Booksellers, Detroit,
"Weekly List of New Works," Pontiat
Courier, June 19, 1837.
121 Constantine Republican, December 14,
1836.

122 Journal of Health 1(1829) 2.
124 Ibid. 4(1832-33) 359-61.

Medicine was on the threshold of the most revolutionary discoveries in its history, but, in the early years of the century, there seemed to be few dramatic advances to raise public hopes and faith, and confront the extravagant claims of the charlatan. Newspapers and other publications were used by the various cults and quacks to draw attention to shortcomings of the medical profession, especially its heavy medication, bleeding, and purging.125

David Ward (1822-1904), who studied medicine in his youth, and later became one of the state's lumber barons, related in his autobiography the treatment he received from Dr. Zina Pitcher, in 1840, for pleurisy. "Severe counter-irritation on the chest by means of Spanish fly blisters, tartar emetic irritations, setons to the right side and tartar emetic solutions taken internally three times daily."126 In 1831, Dr. S. P. Hildreth (1783-1863), a prominent physician of Marietta, Ohio, sent the recipe for "Kittredge's Ointment" to William Woodbridge, Justice of the Supreme Court, at the time. The ointment was recommended for "rheumatism, sprained joints, broken bones, swellings, etc."

Take fresh plantain, nightshade, elder leaves, mellilot (the latter indispensable), chamomill, henbane, poppies leaves and flowers, pond lilly roots, tobacco, mallows, yellow dock roots and apple of [?] or stramonium - of all these equal quantities -bruise them in a mortar and simmer with a little water over a slow fire in brass [?] for a few minutes - then add an equal weight to that of the plants of clean fresh lard and simmer till the juices and water are all evaporated - the extract of the plants remain in the oil which must be strained through a coarse cloth and put away in a stone jar ready for use. 127

How simple and reassuring the following advertisement in the Constantine Republican of July 27, 1836, in contrast to the above treatment!

Miles' Pills. - A few boxes of the Hygeian vegetable universal Medicine of the College of Health; which by removing all obstructions in the intestines; thoroughly cleansing the bowels; purifying the blood and thereby promoting its free circulation; strikes at the root of all diseases; in all cases of which it may be used with safety, and, if perservered in, with profit . . . a substitute for calomel.128

Not only did the increasing circulation of newspapers favor the spread of propaganda by the cults, but the patent law gave protection to their leaders. The first British patent act had been passed in 1624. Under the

same paper, July 13, 1836.

<sup>125</sup> R. Shryock, op. cit. (see note 102, above) 315-17.

<sup>126</sup> Ward, op. cit. (see note 15, above) 47. 127 "Letter to William Woodbridge from Dr. S. P. Hildreth, Marietta, Ohio," Wil-

liam Woodbridge, Papers, 1780–1861, Manuscript, Burton Historical Collection. 128 Constantine Republican, July 27, March 1, May 31, 1837. "Miskin's Genuine Hypeian Pills" were also advertised in the

Constitution of the United States, Congress was given the power "to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive rights to their respective writings and discoveries." A patent law was accordingly passed, on April 10, 1790.<sup>129</sup>

Samuel Thomson (1769–1843) took advantage of this law to set up his "Thomsonian System." A farmer, born in Alsted, New Hampshire, he had lacked sufficient education to become an apprentice to a doctor. In 1800, he adapted some of the ancient medical theories to his own purposes, and created the System, which was based on the use of vegetable, or botanic, remedies, in conjunction with the vapor bath. He was opposed to the use of chemicals, especially calomel and other mercuric compounds, in common use at the time. Thomson took steps to monopolize his new field, in 1813, by having six of his remedies patented. Patent rights were also extended to his disciples, on payment of a fee, and a certificate issued:

This may certify that I have received of Dollars in full for the right of preparing and using the system of Medical Practice secured to Samuel Thomson by Letters Patent and he is thus constituted a member of the Thomsonian Friendly Botanic Society and is entitled to participate in its privileges.

Dated.....Agent.131

In support of Thomsonian doctrines, the *Botanic Luminary*, a monthly periodical, was established in Saline, in July 1836, by Hiram Wright.<sup>132</sup> According to his obituary, Wright was an ordained elder of the Baptist denomination, and had come to Michigan in 1835. On his return to Ohio in 1837, Thomas F. Dodge and S. Wilson King became editors of the periodical. Agents were appointed in Detroit, Northville, Plymouth, and Monroe.<sup>133</sup>

On September 5, 1836, the annual meeting of the Friendly Botanic

120 F. G. Underhay, "Patents," in Encyclopedia Britannica (London 1929) 17. 368.
130 Samuel Thomson, Narrative of the Life and Medical Discoveries, Containing an Account of His System of Practice and the Manner of Curing Disease with Vegetable Medicine (5 editions, Boston 1822-29); New Guide to Health; Or, Botanic Family Physician, Containing a Complete System of Practice upon a Plan Entirely New; with a Description of the Vegetables Made Use of and Directions for Preparing and Administering Them to Cure Disease, to Which is Prefixed a Narrative of the Life and Medical

Discoveries of the Author (2nd ed. Boston 1825); Kremers and Urdang, op. cit. (see note 38, above) 160; Pickard and Buley, op. cit. 172.

131 From form used in Samuel Thomson, Thomsonian Materia Medica, or Botanic Family Physician (12 ed., Albany 1841).

132 Copy in William Clements Library, Ann Arbor, Michigan.

133 Solomon Davis at Detroit, Dr. A. Aldrich for Northville, I. W. Averill for Plymouth, E. Chamberlain at Monroe, Botanic Luminary 1 (July 1836) 16.

Society of Washtenaw County was held in Saline, and R. Edmunds elected president. A licensing committee of three was appointed. Wright represented the society at the United States Botanic Convention, held in Nashville, Tennessee, on October 17, 1836. In his report, he declared it to be the largest ever held with delegations from Kentucky, Tennessee, Ohio, Illinois, Georgia, and Alabama.124

Attempts to form a state organization were not entirely successful, although conventions were held in 1837 and 1838. However, a program was in prospect. A constitution was being drawn up, an "infirmary and seminary" were contemplated, and a committee was appointed to draft petitions for repeal of the "odious" medical laws of the state. The Thomsonians advocated that each "medical society regulate its own practice," basing their claims on a clause in the Constitution of Michigan that "no man or set of men are entitled to exclusive and separate privileges."135

In the issue of January 1838, the Luminary announced the establishment of a Thomsonian Infirmary at Adrian by its editors, Thomas F. Dodge and S. Wilson King, and stated that "Dr." Dodge, in three years' practice, had lost but four patients out of 500; "Dr." King, in two years' constant practice, had lost only one. These gentlemen were evidently not perturbed by the sensational trial of Richard K. Frost, in New York, held responsible for the death of Tiberius French, a teacher at Columbia University. Frost was the proprietor of a "Thomsonian Infirmary," and was accused of administering certain Thomsonian remedies. The jury brought in a verdict of manslaughter in the fourth degree, recommending clemency.136 The Constantine Republican commented, in reporting the case, "Dr. Frost has been held to bail for \$5000 for steaming to death a Mr. French."137 Several months previously, the paper had featured a long, satirically humorous account entitled, "The Autobiography of a Steam Doctor."135 Thomsonian ideas are blazoned from the pages of Territorial newspapers. Whether the promoters of the numerous "vegetable" remedies were followers or imitators of Thomson, they made use of his jargon to sell their products. There were "Butler's Vegetable Indian Specific," Searl's Vegetable Bilious Pills," "Vegetable Universal Pills," "Moffat's Vegetable Life Pills," "Potter's Vegetable Catholicon," "Vegetable Rheu-

<sup>134</sup> Ibid., November 1836.

<sup>105</sup> Ibid., 1 (August 1836) 23-24.

U. and C. G. Lloyd, Life and Medical Dircoveries of Samuel Thomson, and a History

of the Thornsonian Materia Medica (Bulletin #11, Reproduction Series #7, Lloyd Library of Botany, Pharmacy and Materia Medica, Cincinnait 1909).

137 November 15, 1857.

138 By John H. Watts, April 19, 26, 1837.

matic Drops," "Dr. Chipman's Vegetable Anodyne," and "White's Vegetable Toothache Drops," to mention only a few. 189

It is not strange that some physicians questioned the orthodox medical practices of the day, and turned to the doctrines of the cults for better methods of treatment. Perhaps new fads attracted others of the profession. Be that as it may, among the "professional cards" listed in the Botanic Luminary, are the names of P. J. Spalding, A. Barnard, and E. D. Post of Adrian, all of whom were licensed by the Territorial Medical Society.140 Commenting on the progress of Homeopathy, and the "decline" of the medical profession in Michigan, in 1849, the editor of the Michigan Journal of Homeopathy stated that Drs. Edwin W. Cowles and Daniel O. Hoyt, former members of the Territorial and State Medical Societies, were warm advocates of Homeopathy.<sup>141</sup>

A book, published in 1833, combining a number of theories and systems with simplicity and comprehensiveness, must have seemed a welcome solution of the medical problem to the bewildered frontiersman, whose self-reliance had met the test of circumstances in many a crisis. The Improved American Family Physician; or Sick Man's Guide to Health: Containing a Complete Theory of the Botanic Practice of Medicine on the Thomsonian and Hygeian System, with Alterations and Improvements. To Which is Appended a Concise Formula for Compounding Medicine for the Cure of Every Complaint Incident to Human Nature, Also a Complete Digest of Midwifery so that the Old Proverb May be Verified, that "Every Man Be His Own Physician." 142

Medical sects waxed and waned. The Territorial Medical Society continued its functions, when Michigan achieved statehood in 1837, although

139 Michigan Herald, Detroit, February 28, 1827; Democratic Free Press, Detroit, November 28, 1832; State Journal, Ann Arbor, August 10, 1837; Detroit Evening Spectator, January 25, 1837; Detroit Free Press, June 12, 1837; Michigan Whig, Ann Arbor, January 15, 1835; Monroe Times, May 25, 1837.

140 Henry B. Shafer, American Medical Profession, 1783-1850 (Columbia Univ. Press, New York 1936) 235; Botanic Luminary 2 (June 1838); Parey J. Spalding, from State of New York, Licensed on April 13, 1833; Abner Barnard, licensed August 15, 1841; Erasmus D. Post, attended Castleton Medical College, licensed February 10, 1834

191 Michigan Journal of Homeopathy, 1 (May 1849) 78. Edwin W. Cowles served as secretary and censor of Territorial Medical Society. Name mentioned in Constitution and Proceedings, Michigan Institute of Homeopathy, 1847; called "roving homeopath." Practiced in Cleveland, 1832, went to Detroit in 1834, returned to Cleveland, 1838, signed "Table of Fees," printed in Cleveland, Howard Dittrick, "Cleveland Doctors' Fees about 1840," Ohio State Archives and Historical Quarterly 54 (1945) 364. Daniel O. Hoyt, censor of Territorial Medical Society in 1835, Vice-president in 1836.

142 New York 1833. The preface mentions "Dr. Morison, The Hygeist," and "James Morison of Great Britain."

it was constantly being deprived of its privileges by "amendments" and changes in the basic law. By 1835, a wave of repeal of state laws similar to that of Michigan had set in.143 New York repealed the regulatory functions of the State Medical Society in 1844, and the medical law of Michigan was repealed in toto by the State Legislature, in 1851, with the full consent of the members of the Medical Society.144

One of the reasons for the failure of state societies as regulatory agencies was the encroachment upon their prerogatives by the various sects, which also formed societies and also claimed the right to grant licenses, but perhaps the best explanation was offered by Dr. Zina Pitcher, a member of the Michigan Medical Society from 1835, and president in its declining years:

The history of this society furnishes one evidence of a general truth, which is, that the legislation of a government, deriving its powers from the consent of the governed, in order to have any binding validity, must be an exposition of the popular sentiment, however erroneous that sentiment may be.145

 <sup>143</sup> Shafer, op. cit. 209. Not until 1899
 was an adequate law passed for the regulation of medicine in Michigan.
 144 Zina Pitcher, "Notice of the Territorial and State Medical Society of Michi-

gan," Peninsular Journal of Medicine and the Collateral Sciences 1 (May 1854) 500-145 Ibid. 1. 505.

connected with old British silver is that through the presence of these hall marks, which have been in use for the last five or six hundred years, the date of manufacture and the local origin of articles can be traced. The Goldsmiths Companies in certain of the principal British cities are empowered and required by statute to carry out and where necessary to enforce the provisions of the hall-marking enactments which are a guarantee of the fineness of the silver. The silver article after being stamped by the marker with his initials (1) is submitted to the Goldsmiths Company, where after scrapings have been assayed for silver content the hall marks are applied. The town mark, the leopard's head (crowned before 1822, uncrowned since) (3) is indicative of London manufacture; the fineness mark, the lion passant, (2) guarantees silver of old sterling quality, that is 92.5% silver, and the reigning sovereign's head (5), impressed from 1784 to 1890, denotes payment of government duty, which was collected during this period. The single letter (4) is the date mark, that is, the year assayed and stamped. The character of the script and the shape of the enclosing shield must be observed as well as the letter. The script and shape of shield remain constant for 20-year cycles, the letter changing from year to year during each cycle. Thus the illustrated script and shield are common to London ware of the period 1796 to 1815, the letter "D" denoting hall marking in 1799.

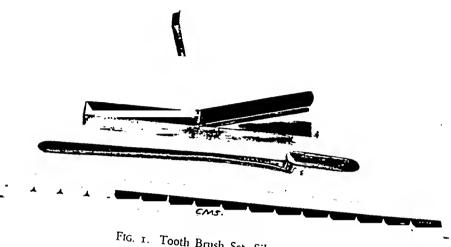


Fig. 1. Tooth Brush Set, Silver, 1799.



### William Harvey (1578-1657)

#### HIS APPLICATION OF BIOLOGICAL EXPERIMENT, CLINICAL OBSERVATION, AND COMPARATIVE ANATOMY TO THE PROBLEMS OF GENERATION

#### H. P. BAYON\*

#### Introduction

A FEW years ago, a scientist told me that De generatione was but too aptly entitled, for it revealed the last infirmity of a noble mind—the degeneration of old age. The sentiment of this sally was not new, for Jan Swammerdam (1637–1680) had already censured Harvey because in his senile decrepitude he had incoherently mixed truth and error, falsity and accuracy (Historia insectorum generalis, Utrecht, 1699). It is usually accepted that Harvey wrote his third book in his seventies, shortly before 1650, when, yielding to the friendly insistence of Sir George Ent (1604–1689), he allowed Exercitationes de generatione animalium to be published.

Instead, judging from remarks in Exercitation VI - Harvey had helped Fabricius in Padua with the observation of hatching eggs-that could not be later than 1602. Embryonal chicks were mentioned in the Prelectiones which were penned before 1616; further references to chick embryogeny occurred in Chapter IV of De motu (1628); experimental observations on does in the Royal Parks were performed "during a long series of years" about 1633. John Aubrey (1626-1697) recorded that Harvey examined hatching eggs in Oxford in 1642, his papers on the generation of insects were destroyed in the riots in London during his absence in the service of King Charles I—therefore approximately 1642-1644. Sir Kenelm Digby (1603–1655) in Two Treatises etc. (London, 1645, Chap. XXIII, p. 275) mentioned Harvey's examination of pregnant "does and hindes." Thus it can be reasonably assumed that in the course of half a century, Harvey succeeded in collecting observations which he brought together into a coherent script, that Ent obtained in December 1650 and edited, so that it appeared in print in March 1651. Though, as we learn from "The Epistle Dedicatory," Ent greatly admired the text,

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calling it "A work framed and polished with very great pains," it reveals some contradictions, several repetitions, and numerous ambiguities. The book was published during a time of prolonged political commotion, when the author was 73 and may have lacked the energy to revise a script, however conscious he may have been of its flaws—or what is worse, when he was not inclined to modify or test ingrained opinions; for it must be admitted that the real merits of the work are often clouded by superfluous dialectical verbiage.

Whatever the reason—or reasons—it must be allowed that De generatione (1651) has not been noticed or praised like De motu (1628); indeed, these painstaking embryogenic researches have been neglected by Harveyan orators and others. When approval has been granted, it has usually been because of a misquotation of the dictum on the frontispiece of the 1651 edition: Ex ovo omnia, which does not really reflect the extent of Harvey's investigations and results. Thus Meyer-Steineg and Sudhoff (1922, p. 310) wrote: "die Aufstellung des Satzes 'omne vivum ex ovo' machte mit einem Schlage all den phantastischen, früheren, Zeugungstheorien ein Ende." As a matter of cold fact, the emboitement hypothesis continued to obtain support during many years, while the lively controversy between ovists and animalculists persisted until the nineteenth century.

In Garrison's History of Medicine (4th ed. Philadelphia, 1929, p. 248) it is said: "The status of Harvey's other treatise De generatione animalium (1651) is important in the history of embryology and a matter of frequent dispute. Some writers have tended to make Harvey's merits overshadow the just claims of men like Malpighi and von Baer." Garrison also misquotes Harvey's dictum, which—it is said—was first stated by Redi as omne vivum ex vivo; it should be recalled that the Esperienze intorno alla generazione degl'insetti was not published till 1668.

#### I. RECENT CRITICISMS OF HARVEY'S THIRD BOOK

The interest in Harvey's De generatione has lately been revived, but a comparison of its results with those achieved by De motu has usually produced a somewhat acid verdict. For example, Cole (Early Theories of Generation, Oxford, 1930, p. 134:

It is difficult, almost an invidious task to review Harvey's work on generation. His demonstration of the circulation of the blood gives him such an exalted position in British Science, that we are almost tempted to forget his work on

generation — in which the great man was making an heroic, and almost a pioneer attempt to solve a problem wwhich was insoluble by his generation, or for that matter by ours. Hence it is inevitably a record of failure.

In all fairness it can be said that Cole admits (p. 140):

Nevertheless it was Harvey that gave the initial impetus to that long series of researches, which discovered in his dictum a profound truth of which he himself was but dimly conscious.

Joseph Needham in A History of Embryology (Cambridge, 1934) obtains a much more favourable opinion of Harvey's studies of embryogeny; for after careful study of the text he lists Harvey's main achievements under 10 headings, which seem to correct previous understatement.

Arthur William Meyer in An Analysis of the De generatione animalium' of William Harvey (Stanford University and London, 1936) scrutinizes Harvey's text and considers the divergent opinions of Cole, Needham, and others; with commendable impartiality Meyer refrains from accepting wholeheartedly the conclusions of either of these doughty contendents. Meyer deserves praise for examining the descriptions of Harvey's experiments on gravid cervae et damae and comparing them with those of modern authors like Bischoff (1854), Bonnet (1884), Keibel (1899 and 1901), and by explaining where the latter agreed with, and where they differed from Harvey, shows clearly why and how he obtained erroneous conclusions. A fair account of Meyer's verdict cannot be obtained by random samples, but on p. 144 he appears to quote approvingly Ormerod (1908) who wrote that "whilst De motu arose complete, conclusive, victorious like Pallas from the Head of Jove, instead in De generatione we witness his painful and laborious searchings after truth."

Quite lately, in 1942, the Cornell University Press published a facsimile of the embryological treatises of Hieronymus Fabricius of Aquapendente (1533–1619), with an introduction, a translation and commentary by Howard B. Adelmann, Cornell University. This is an admirable piece of work, because the author has a sound knowledge of the subject and takes considerable trouble in obtaining accurate biographical details.

The opinions expressed in Harvey's De generatione receive frequent and careful attention; the conclusion is (p. 121):

Harvey built upon foundations laid by Fabricius and so in some cases approximated more closely the truth as we see the truth today; but Fabricius no less than Harvey contributed to its slow advance. Both struggled with problems far too

difficult for their age to solve, but both contributed documents precious to the history of biology.

Any attempt to explain the meaning of a serious text by the quotation of few lines usually results in being grossly unfair, if nor impertinent; but the main conclusions of Adelmann's remarkable book seem to be condensed in these sentences. Adelmann is justly entitled to decide between the respective merits of the Paduan professor and the English physician, since his readable sketch of the state of embryological knowledge before Fabricius is both accurate and well documented.

It may sound presumptuous to express an opinion differing from that consistently evolved during three centuries; yet, it has seemed to me that a clearer consideration of the incentive provided by Harvey's writings; a better knowledge of the factual and anatomical information available for his use; a fairer recognition of his patient and prolonged reasonings; a touch of personal sympathy for the pitfalls of biological experimentation, and a lucid comparison of the relative difficulties and extent of the problems involved—all this would help to clarify the results achieved, explain the faulty conclusions obtained, and suggest the verdict that *De motu* is not really superior to *De generatione*—for both are as good as Harvey could make them and both are different, but remarkable, milestones in the progress of biological knowledge.

#### II. THE ALLEGED SUPERIORITY OF De motu OVER De generatione

Since Harvey's work on embryogeny has been frequently slightingly compared with that of the demonstration of the circulation of the whole blood, a little thought may be expended in attempting to ascertain whether this supremacy can be supported by a critical examination.

In the first instance a great deal of meshless fustian has been woven by many authors on the presumed anticipation of a description of the circulation of the blood by Hippocrates, Galen, Rabelais, Serveto, Rudio, Cesalpino, and many others besides. Sciolism verging on absurdity was revealed by Giambattista Ercolani (1817–1883) who placed a tablet on the walls of the Veterinary Institute of Bologna recording that the lawyer Carlo Ruini had been the first to discover the circulation of the blood. This is scarcely the opportunity for a renewed debate of the trite question; but it may be mentioned that the lecture notes by a pupil of Cesalpino have been preserved in the Bodleian at Oxford; from these can be learned

that Cesalpino taught that the word circulatio meant the to-and-fro movement occurring in a cooler on top of a boiling vessel (Fig. 1). In this particular instance, Cesalpino believed that the ebullition was caused by the innate heat of the heart and that the valves of the heart preserved the hear. He did not mention the presence of ostiolis = valves in the veins. Better bottomed—as Harvey would have said—is the assertion that Harvey obtained his first notion of the circulation from Fabricius, though even this is, demonstrably, a superficial conclusion. Fabricius published a description of the valves in the veins in De venarum ostiolis (Padua, 1603) in which he said that the valves helped the to-and-fro movement of the blood by preventing an accumulation of blood in the lower limbs, for he believed that the venous blood flowed from the heart. In 1688 Robert Boyle (1627-1691) mentioned a conversation with Harvey, in which he said that his first notion of the circulation was obtained by noticing how the valves were so placed as to oppose the venous blood from flowing towards the heart. It should be remembered that in the lecture notes which Harvey wrote about 1616 he based his views on the presence of clacks or valves in the heart, which acted as those of a pump to raise water. This is essential, because in the opinion of Fabricius - and other Galenists - the heart was passively expanded. It is true that Harvey copied one of the illustrations of Fabricius, but added three of his own to show the right working of the ostiolis in the arm. Any modern physiologist would act likewise: if he wished to clarify a debatable thesis, he would reproduce his opponents' illustrations and demonstrate their correct interpretation by additional figures and tests. Thus the assertion that Fabricius taught the circulation of the blood to Harvey is palpably erroneous. The contrary holds good the Paduan professor propounded the Galenical movement of the blood and if he ever heard of his pupil's new theories, no doubt poured scorn on the "fisime del piccolo inglese."

Where Harvey failed in achieving conclusive results in *De motu cordis* (1628), and also later, is well known and admitted: he did not succeed in proving the existence of capillaries, though he performed experiments that should have convinced him of their existence; even careful dissection would have revealed them. He refused to accept the lacteals of Gaspare Aselli (1581–1626) published in *De lactibus* (Milan, 1627), though they were evident enough; in fact Harvey had seen them. He obtained only the

haziest idea of the connection between the circulation of the blood and breathing, though both Colombo and Serveto had apparently grasped the importance of the aeration of the blood by the lungs.

Such are the main flaws of *De motu* and the doctrine of the circulation as propounded by Harvey; but so much was achieved by sound, original experimentation combined with correct observation, and so bravely were the conclusions maintained against a conspiracy of silence during nine or more years, followed by twelve years of active opposition, that such defects can scarcely reduce the appreciation of Harvey's work.

The first to admit in print the truth of the Harveyan circulation was the physician Robert Fludd (1574–1637) in Integrum morborum mysterium (Frankfurt, 1631, p. 11).

Reverting to the subject of Harvey's investigations of the problems of generation, for a clear conception of Harvey's achievements some knowledge should be obtained of his background of the soil, atmosphere where he lived and worked, so as to ascertain what progress he initiated in the matters he studied.

## III. Doctrines of the Medical Faculty of Padua in the Early Seventeenth Century

In the years between 1598 and 1602, when Harvey studied at the University of Padua, it was the most advanced centre of medicine and natural philosophy then known. It can be doubted whether Harvey profited from the lectures during the first half-year, because, though Latin was a lingua franca among the learned, the pronunciation of his Italian lecturers would have been unintelligible to a Cambridge scholar of the time. That so many Anglicans, Lutherans, and other Protestants studied at Padua was due to the broad-minded statutes of the "fair Mother of the Arts" which required no confessional declaration of the graduates. Under Geronimo Fabricio da Aquapendente (d. 1619) Harvey would receive the most inspiring tuition available; for Vesalian anatomy would be alive, even if still shackled by doctrinal tradition. True, Galen had been shown to have been wrong in many of his descriptions, owing to the fallacy of believing that the features present in the inner organs of animals must also occur in man without noticeable modification, but nonetheless his authority (and some of his mistakes) was accepted in wide academic circles, for comparative anatomy was still in its infancy. Even Fabricius had not fully grasped the observations of Gian Filippo Ingrassia (1510-1580), Bartolomeo Eustachio (1520–1574), Gabriele Fallopio (1523–1562), which showed anatomical differences between the homologous organs of various animals, rather than construing an identity in appearance. The authority of Aristotle, Hippocrates, and Pliny was still unassailed in many matters; this is noticeable in the writings of Fabricius, because every time he had to expound some feature described by a classical author, the professor was very careful not to contradict, but modified with many words the ancient description. The porosity of the cardiac septum according to Galen was being taught by Fabricius and Rudio. This porosity, apart from serving to strain the blood, probably had been observed in the heart of cattle, where there are numerous small cavities — which of course do not pass right through the septum.

In Padua, Harvey would be taught to accept a strange correlation between male and female sexual organs; thus the uterine cervix would be made to resemble the glans penis as much as actual appearances would allow. The ovaries of mammals were considered to be female testes; their function was grossly misunderstood, for it was taught that they elaborated the female semen, which we now know as the product of vulvo-vaginal glands.

As to the constitution of sperma, the possibility of its containing corpuscular elements was not even faintly suggested; it has been noted by Le Double (1899) that Rabelais wrote that Quaresmeprenant avait les genitoires comme des clons—and spermatozoa vaguely resemble nails; but this is no more than a literary curiosity, for if Rabelais had seen spermatozoa he would have said so, clearly and unambiguously.

Instead, the presence of a vapour or spirit in male semen was often mentioned — for example it is found in Serveto's Christianismi Restitutio (1553). This opinion, it will be seen, must have misled Harvey in his investigations. The production of sperma by the testes (if and when admitted) seemed most mysterious, as indeed it is, even with all our knowledge of cytological spermatogenesis; but several reasons were available to explain the conception of the sexes, the inheritance of the characteristics of father or mother.

In relation to the phenomenon of conception, two hypotheses were available: the Aristotelian doctrine, sperma-menstrual blood; or the Galenical teaching that it was due to the mixture of male and female semen, the varying proportions of which produced male or female.

On the authority of several classical authors it was universally be-

lieved that quails, vultures, and — under certain circumstances — mares, or even women could be fertilized by the wind. In relation to poultry, the existence of wind-eggs was known; these were unfertile eggs obtained without the concourse of a cock-bird. A good review of the subject is given by Conway Zirkle in his paper, "Animals Impregnated by the Wind," Isis, 1936, XIV, 95–130. This author mentions Harvey on pp. 114 and 129; in the latter instance Harvey is listed as having described the wind impregnation of hens — not quite correctly, in my opinion.

Fabricius did examine hatching eggs, and noted how difficult it would be for the semen to reach the ovary through the many folds of the oviduct; this difficulty gave rise to the suggestion of Fabricius that the cock's seed was stored in the small blind crypt in the end gut of fowls—later known as Bursa fabricii—whence it could fertilize the eggs during a whole year, presumably by means of an aura seminalis. This seems to have been the origin of the hypothesis formulated by Harvey in later years.

The current notions about contagion require attention, because Harvey compared fertilization with contagion - the latter being something quite incorporeal. It is known that Fracastoro in his De contagione et contagiosis morbis et eorum curatione (Venice, 1546) had made some most remarkable assertions about the concentric spread of the seminaria contagionis, remarks which could easily persuade the modern reader that Fracastoro had actually seen the microbes issue forth from the ailing, attach themselves to the healthy, and communicate the same disease to them. Then, though Fracastoro can be understood to say that the seminaria were living, he would not distinguish between living cells and inanimate particles - for could not mud procreate gnats or even frogs? We now appreciate how advanced and farseeing Fracastoro was; but it is not apparent that wide medical circles were at all impressed by the seminaria. Plague, pestilential fevers, and leprosy were considered infectious; but so was epilepsy, whilst lice and scabies did not spread from person to person, but were generated by dirt on the body. A difference was made between the infection from person to person, e.g., in syphilis and the outbreak of epidemics; the latter were due to the weather or winds or the stars. Robert Fludd had a picture showing the healthy Christian protected by angels against verminous attacks - but he was an exception.

Then, if he ever read Fracastoro, Harvey would probably remember sentences like: "Lippitudinis genus est quo qui laborat omnes solet inficere, qui in ipsum spectant" (p. 18), that is: "There is an eye disease which infects all that look upon it." Or he would consider Chapter XI where the deadly properties of a glance from the "catablepha"—a fabulous animal from Pliny—are mentioned. Harvey could not do otherwise; he had been taught in the last years of the sixteenth cenutry, and lived in the first half of the seventeenth and was well acquainted with the work of William Gilbert (d. 1603), author of De magnete (1600). Thus it occurred that Harvey compared the production of an "egg" by sperma, as being the result of the conjugation of cells or seminaria he could not see, rather than as due to the distant action similar to electromagnetism.

The text of *De contagione* etc. (1546) has been consulted in the edition of Wilmer Cave Wright (New York, 1930). Fracastoro's opinions are clearly explained by Charles and Dorothea Singer in "The Scientific Position of Girolamo Fracastoro (1478–1553)," Ann. Med. Hist. 1917, I, 1-34.

# IV. Contributions of Fabricius to the Knowledge of Fætal Anatomy

Modern anatomy is based on the text and illustrations—or should it be illustrations and text?—of the *De fabrica* etc. (Basel, 1543) of Andreas Vesalius (1514–1564), whose fundamental work was a striking example of the immense importance of printed figures and script in the development of the biological sciences because botany, zoology, and their many allied branches of natural philosophy, could not advance without accurate records and illustrations. Contemporary scholars can rely on the printed word; but in the Middle Ages the student was oft misled by garbled or pseudo-epigraphic copies.

In relation to fætal anatomy, Vesalius had considerable difficulty in obtaining the requisite material and so it occurred that he described the annular placenta of a dog as occurring in man. It was that accomplished exaggerator, Realdo Colombo (d. 1559), who soon corrected this mistake of his teacher. Colombo apparently suggested the name "placenta" and stressed that the fætus is nourished from the umbilical vein though he adhered to the ancient mistake that the heart of a fætus did not function.

Among the forerunners of Fabricius in the embryological field, two deserve special notice: Ulisse Aldrovandi of Bologna (1522-1605) whose

BRIEFLY NOTED • • • • • from page 56

Grants and commitments totaling \$18,600 for advance research in special drug and chemical studies have been awarded to the Pharmaceutical Foundation of the University of Texas by the Clayton Foundation. A \$3600 research grant from Sharp & Dohme, Inc., bas also been made available to the newly established Pharmaceutical Foundation.

Miss Sarrah R. Norred recently returned to her alma mater, Howard College, to serve as assistant professor of pharmacy.

Purdue University School of Pharmacy reactivated its extension department with its first Druggists' Business Conference since 1943 beld on November 8 and 9.

Students of the Texas State University for Negroes School of Pharmacy heard Dr. R. B. Keppler of Hoffmann-La Roche, Inc., give a history of his company November 22. Mr. Roy Wiese, Jr., local representative of Schering Corporation, visited the University on November 30 and lectured on he international houses of Schering.

A portrait by Henry Rood, Jr., of the late Dean Marion Lee Jacobs of the University of North Carolina School of Pharmacy was unveiled November 12. The portrait was a gift of the pharmacy studen body of 1949-50.

#### **MANUFACTURERS**



Medical Horizons, distributed by Sandoz Pharmaceuticals, New York, is a new professional quarterly containing for the most part, technical information of interest to physicians

Wyeth, Inc., Philadelphia pharmaccutical manufacturer, is in the process of constructing a laboratory in West Chester, Pa., for the conversion of penicillin into various forms suitable for medical and veterinary uses.

Lloyd C. Miller, Director of Revision, the United States Pharmacopoeia, addressed The Upjohn Company Medical Science Seminar October 31. His topic was "U. S. P. Revision and Pharmaceutical Research."

A. H. Robins Company, Inc., Richmond, Va., held the largest training program of its history October 9–19, when 33 recently appointed medical representatives assembled in the firm's new offices for intensive drill in the promotion of products and in institutional policies. The ten-day conference, beginning with a welcoming address by President

E. Claiborne Robins, was under the direction of E. F. Heffner, Jr., sales manager.

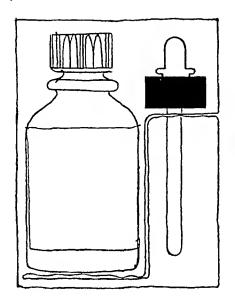
Establishment of a pharmaceutical department by Amino Products Division of International Minerals & Chemical Corporation was recently announced. James H. Cupps has been appointed manager.

Scientists attending Smith, Kline & French Laboratories' Fourth Annual Research Conference recently held in Philadelphia predicted that investigation of the gonadotropic field holds the greatest promise in the field of endocrine research. Dr. M. Edward Davis, professor of obstetries and gynecology, University of Chicago College of Medicine, pointed out that there is a great clinical need for effective sex hormone agents. "Although work in this field is still in preliminary stages," he said, "new and promising research leads are being developed."

#### Personnel Changes-

Chas. Pfizer & Co., Inc.—Charles A. Kapp has been appointed district manager of the Antibiotics Division. Winthrop-Stearns Inc.-Alva Proctor formerly special hospital representative, was promoted to the position of Chicago manager. Harold Q. Callalian, also a hospital representative. has become division manager in New Orleans. Brayten Pharmaceutical Company-Richard Kennon Hines, secretary and director of Vick Chemical Corporation, is the new executive vice-president. Sharp & Dohme, Inc.-John R. Stockton bas been appointed assistant to the Director of Biological Rilcy McGaughran and Duane C. Production Hess, two new research associates, have been added to the staff R. H. Reiten is now serving as sales supervisor in Minneapolis. Wycth, Inc .-- Lester J. Bishop has been promoted to district manager for central and southern Ohio. E. R. Squibb & Sons-Dr. William A. Feirer has been appointed to the newly created post of vice-president in charge of scientific affairs. Smith, Kline & French Laboratorics-Dr. John K. Clark and Dr. Ernest M. Brown, Jr., former faculty members of the University of Pennsylvania School of Mcdicinc, have joined the company as medical consultants... Two new scientists, Drs. Howard L. Dinsmore and Robert E. Keller, have been added to the Research Laboratories Dr. J. W. Stutzman, former associate professor of Pharmacology at the Boston University School of Medicine, is now in charge of the pharmacology section. Schering Corporation has recently added eighteen new representatives to its professional service staff. Ethicon Suture Laboratories, Inc .- Dr. Walton Van Winkle, Jr., is taking over as director of research. Dr. Van Winkle was formerly a medical official with the U.S. Food and Drug Administration and more recently

(Continued on Page 60)



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with the American Medical Association. The Upjohn Company-Drs. G. F. Cartland, H. G. Kolloff, and M. H. Kuizenga have been appointed assistant directors of research. A. II. Robins Company, Inc.-E. W. Zeller recently assumed his new duties as assistant sales manager. Strong Cobb & Company, Inc.-William N. Douslikess lias joined the company as director of the Chemical Development Division. Cutter Laboratories-Dr. Victor P. Sceberg will head the recently created Pharmaey and Pharmaeology Research Department, Berkeley, California...William Muller, recent addition in the executive sales staff, will specialize in sales promotion and new product development for the Berkeley firm ... Meredith Ynrling, hospital specialist formerly in the Detroit territory, has been transferred to New York. Chilcott Laboratorics-Charles C. Scott, M. D., Ph. D., formerly with Eli Lilly and Company, Inc., has recently been appointed Director of Pharmaeology.

#### AT RANDOM



Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., has been appointed to serve on the Advisory Council to the Director of Civil Defense, City of New York.

Listing the names and addresses of all licensed members of the dental profession in the United States, the 1950 edition of the American Dental Directory is now being distributed by the American Dental Association. The first edition of the directory since 1947, the new publication includes the names of 86,876 dentists, with a separate geographical list of dental specialists.

The Pan American Sanitary Burcau, Regional Office of the World Health Organization, and first of the international organizations in the field of public health, celebrated its 48th anniversary December 2.

Announcement of a \$300,000 allocation for civilian relief in Korea in addition to the \$100,000 grant made November 1, was made recently by the American Red Cross.

The first preventive medicine unit of company size was ordered to duty in Korea, Maj. Gen. R. W. Bliss, surgeon general of the Army, announced in November. This is the first unit of its kind to be established by the Army Medical Service. Others are now being organized.

The units will take over the duties of the malaria control detachments of World War II, but its range of netivity will extend to the inspection of field sanitary conditions and control of insect-borne and water-borne diseases. They will act as far forward in the line as necessary in order to accomplish their mission.

Six officers, one warrant officer, and 59 enlisted men make up the preventive medicine companies. Officer personnel are entomologists or sanitary engineers while the enlisted men are trained in one or more phases of preventive medicine.

Brigadier General Paul I. Robinson, chief of Personnel, Army Medical Service, has announced the immediate need of 3000 nurses for the Army Nurse Corps. General Robinson warned that the present shortage represents one of the most critical problems now confronting the Army Medical Service.

#### HOSPITAL PHARMACY



Members of the American Hospital Association's Committee on Pharmacy appointed to serve during 1951 include: Robert R. Cadmus, M.D., University of North Carolina, Chapel Hill,

ehairman; Don E. Francke, University Hospital, Ann Arbor, Mieh.; Hans S. Hansen, Grant Hospital, Chicago; W. Arthur Purdum, Johns Hopkins Hospital, Baltimore; George C. Schicks, Hospital of St. Barnabas and for Women and Children, Newark, N. J.; and Joseph Snyder, Presbyterian Hospital, New York City.

Retirement of Dr. Malcolm T. MacEachern from active service with the American College of Surgeons has been announced. Dr. MacEachern is director emeritus of the college and, until the present time, director of the college's hospital standardization program. He will continue as professor and director of Northwestern University's course in hospital administration, and as chairman of the Tri-State Hospital Assembly. He is also president of the American Protestant Hospital Association, honorary president of the Western Hospital Association, and chairman of the Association of University Programs in Hospital Administration.

Dr. Pnul S. Ferguson, who has assisted Dr. MaeEachern with the program since 1939, has been named to hend the standardization activities of the American College of Surgeons.

Dr. Robert R. Cadmus, the American Hospital Association's representative on the Policy Committee of the American Pharmaceutical Association's Division of Hospital Pharmacy, recently became the director of the new teaching hospital at the University of North Carolina, Chapel Hill. He

(Continued on Page 62)



110N: How many red blood cells are replaced due to "wear and tear"?

R: Approximately 25 million a QUESTION:

ANSWER: day in normal people



When abnormal demands overtax the blood forming capacity of the body producing easy fatigability, sub-clinical anemia too often does not receive corrective treatment until more serious symptoms urgently demand attention.

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BRIEFLY NOTED • • • • • from page 60

was formerly assistant director of the University Hospitals of Cleveland and prior to that time was director of the Vanderbilt Clinic of Presbyterian Hospital in New York City.

New Orleans, La., will be the site for the 1951 Institute on Hospital Pharmacy to be held during the week of June 11. This annual meeting which serves as a training course for hospital pharmacists will again he sponsored by the American Hospital Association in cooperation with the AMERICAN PHARMACEUTICAL ASSOCIATION and the American Society of Hospital Pharmacists. The Planning Committee is headed by Don E. Francke, Director of the A. PH. A.'s Division of Hospital Pharmacy. Other members of the committee include I. Thomas Reamer and Alhert P. Lauve, representing the A. S. H. P.; Robert P. Fischelis representing the A. PH. A.; and Charles T. Dolezal of the American Hospital Association. Chairman of the local planning eommitee is Miss Valerie Armbruster, chief pharmacist, Charity Hospital, New Orleans,

Included in the new Greenwich Hospital, Greenwich, Conn., will be a pharmacy department having a greatly expanded area and additional facilities. Frank Steele, chief pharmacist is responsible for planning the new department. Located on the ground floor of the hospital, the pharmacy includes a dispensary, an office, a sterile solution room and storage space.

The 1951 convention of the Catholic Hospital Association will be held in Philadelphia, June 2 to 5. The third annual Institute for Hospital Pharmacists sponsored by the Catholic Hospital Association will be held in conjunction with the convention with meetings May 31 to June 3.

#### GOVERNMENT



The cut-off date for starting courses under the GI Bill is only six months away. The deadline, July 25, 1951, applies to veterans discharged from service before July 25, 1947.

Veterans must actually have started their training by the cut-off date if they want to continue afterward, the Veterans Administration has warned. A veteran must be in training on that date unless he has temporarily interrupted his course for summer vacation or for reasons beyond his control.

Once he completes or discontinues his course after the deadline, he may not start another course.

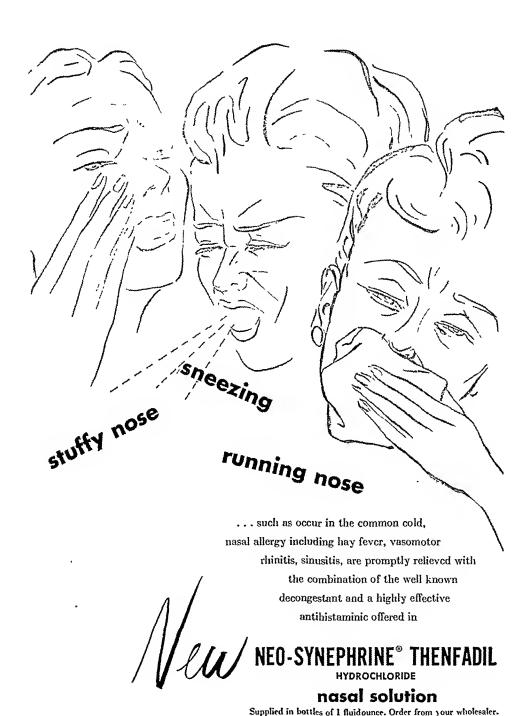
After the cut-off date, the veteran who continues his course must pursue his training "continuously until completion, except for conditions which normally would cause interruption by any student." Four categories of veterans may be treated as exceptions to the above: (1) those whose GI Bill studies are interrupted by a return to the service; (2) veterans who have completed pre-medical or pre-dental schooling and can't get into medical or dental school by deadline time; (3) teachers who spend their summers taking courses leading to a degree, and (4) those who have completed undergraduate courses and intend to go ahead with graduate training which would start after the deadline date.

#### New appointments-

Dr. David E. Price has been appointed an assistant surgeon general of the Public Health Service and an associate director of the National Institutes of Health.

"The position to which Dr. Price has been appointed," Osear R. Ewing, Federal Security Administrator, said in announcing the appointment, "has been created because of the growth of the National Institutes of Health and particularly because of the increased administrative responsibilities entailed by the broadening of the grants programs, the inauguration of a large eortisone-ACTH research program, and the initiation of new research in the metabolic and neurological diseases."... Dr. Philip N. Powers has been appointed as specialist on scientific problems in the Manpower Office of the National Security Resources Board. He will help develop and coordinate plans for assuring the nation enough scientists to meet the needs of the armed forces, industry, and education. . . . Dr. Charles A. Thomas, executive vice-president of the Monsanto Chemical Co., was appointed chairman of the Scientific Manpower Advisory Committee of the NSRB. Dr. Thomas is a former president of the American Chemical Society, a former director of the Oak Ridge Lahoratories of the Atomic Energy Commission, and a member of the Scientific Panel of the United States Representatives to the United Nations Atomic Energy Commission . . . Federal Security Administrator Osear R. Ewing has appointed John L. Thurston as his deputy. He will be known as Assistant Federal Security Administrator. Mr. Thurston served in the Executive Office of the President where he was a member of the President's Scientific Research Board, and the Commission on Higher Education. He joined FSA in 1948. . . .

General Marshall announced last month that a contract had been signed between the Department of Defense and the American National Red Cross by which the Department of Defense will provide financial assistance to the Red Cross to aid it in rapidly expanding its facilities for furnishing blood to the armed forces. An immediate advance of \$3,000,000 was provided. The Defense Department has set a total of \$12,000,000 from which the Red Cross will be reimbursed for a portion of the total cost incident to the collection and shipment of blood.



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#### A. M. A. JOURNAL SUGGESTS ANTIDOTES FOR BROMATE NEUTRALIZERS IN HOME PERMANENT WAVE KITS

An editorial in the Journal of the American Medical Association (144: 397, September 30, 1950) pointed out the potential danger of ingestion, either accidental or intentional, of neutralizing solutions contained in permanent waving kits for home use The solutions are usually potassium bromate or, less frequently, sodium bromate.

The editorial reported one case in which death occurred, and one other in which severe illness, resembling anuria, was seen. Other eases are eited, with the symptoms ranging from moderate gastro-intestinal irritation to severe toxic nephrosis

In answer to a request in the editorial for an antidote to these solutions, Dr Matthew J. Brunner, of Chicago Heights, Ill, described an antidotal procedure in a letter to the Journal (Journal of the American Medical Association, 144: 1282, Dec 9, 1950).

The antidotes and procedure recommended by Dr Brunner are quoted, as follows:

#### "1. Administration of an emetic

- (a) Mustard powder, 1 teaspoonful, in 300 ee of warm (not hot) water, or
- (b) Zinc sulfate, 1 teaspoonful, in water, followed by eopious ingestion of water, or
- (c) Apomorphine, 5 mg, intramuscularly
- (d) Gastric layage.
- "2. Sodium thiosulfate, 1 level teaspoonful in water. This may precede but should in addition always follow the emetie
- "3. Demuleent drinks, such as milk, flour and water, or cereal gruel
- "4. Sodium thiosulfate solution, 1 per cent by intravenous drip, in quantities of 100 to 500 ec If not feasible, 10 to 50 ee of 10 per cent solution of sodium thiosulfate may be given intravenously.

"Gastrie washings and urine should be tested for the presence of bromide Since a fatal outcome is apparently dependent on the nephrotoxic effect of bromate, speedy removal of the material from the stomach by mechanical or chemical means is of the utmost importance. When uremic symptoms develop, treatment is indicated as for mercury poisoning, since tubular degeneration similar to that produced by mercury has been noted in bromate studies on animals."



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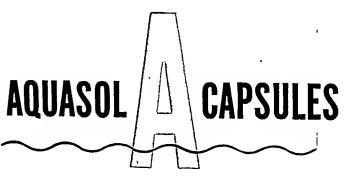
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FOR THE FIRST TIME

# aqueous natural vitamin A, in capsules

AQUASOL A CAPSULES is the first and only product to provide water-soluble natural vitamin A in capsules . . . and is made by the "oil-in-water" technique developed in the Research Laboratories of the U.S. Vitamin Corporation (U.S. Pat. 2,417,299).



two potencies:

25,000 U.S.P. Units natural vitamin A per capsule ... in water-soluble form

**50,000** U.S.P. Units natural vitamin A per capsule ... in water-soluble form

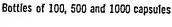
#### advantages:

up to 500% greater absorption 80% less excretion 85% higher liver storage

#### indications:

for more rapid,
more effective therapy
in all vitamin A
deficiencies ... particularly
those associated with
conditions characterized
by poor fat absorption
(dysfunction of the
liver, pancreas, biliary
tract and intestines;
celiac and other
diarrheal diseases).

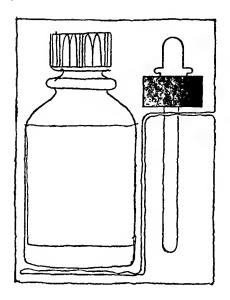
Proven effective in ACNE and other dermal lesions responsive to high potency vitamin A.





### u. s. vitamin corporation

casimir funk laboratories, inc. (affiliate) 250 east 43rd st. • new york 17, n. y.



### announcing:

# 'Drilitol'\*

- 1. anti-bacterial
- 2. anti-allergic
- 3. decongestive

an entirely new approach to the treatment of

# intranasal infections

'Drilitol' provides a strikingly effective, clinically proved approach to the treatment of common upper respiratory tract infections.

'Drilitol' contains two exceptional antibiotics: anti-gram negative polymyxin (new) and anti-gram positive gramicidin. Their combined antibacterial spectrum is extremely wide.

'Drilitol' also contains an efficient antihistaminic, thenylpyramine; and an effective vasoconstrictor, Council-accepted 'Paredrine'\* Hydrobromide.

'Drilitol' will be of tremendous value in helping the physician reduce the severity, duration and complications of common intranasal disorders.

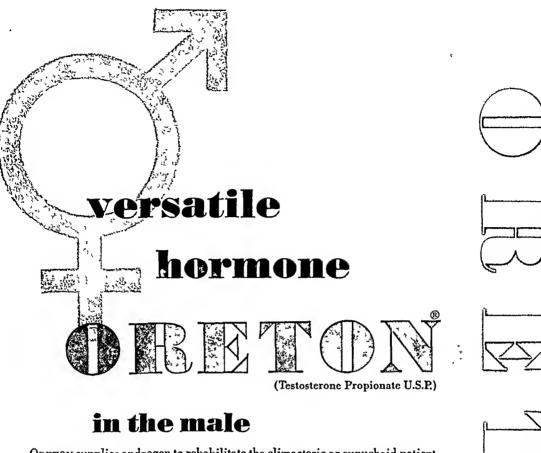
You should anticipate an immediate demand for this welcome new preparation. ½ fl. oz. bottles of 'Drilitol', with special dropper that delivers the adult dose, are available now at your wholesaler. List price, \$12.96 doz.

For best profit, order at least 4/12 doz. bottles from your wholesaler TODAY.

Formula: Drilitol is a stable, isotonic, aqueous solution containing thenylpyramine hydrochloride, 0.2%; gramicidin, 0.005%; polymyxin B sulfate, 500 units/cc.; 'Paredrine'\* Hydrobromide (hydroxyamphetamine hydrobromide, S.K.F.), 1%. Preserved with thimerosal, 1:100,000.

Smith, Kline & French Laboratories, Philadelphia

\*Trademark



ORETON supplies androgen to rehabilitate the climacteric or eunuchoid patient.

### in the female

ORETON overcomes excessive estrogen activity, and controls functional uterine bleeding and dysmenorrhea. ORETON exerts a palliative effect in carcinoma of the breast.

### in both sexes

ORETON exhibits a protein anabolic effect, builds tissue and enhances wellbeing of the aged patient.

### ORETON

ORETON, Schering's brand of Testosterone Propionate U.S.P. in oil for intramuscular injection.

Schering corporation · bloomfield, new jersey





### announcing:

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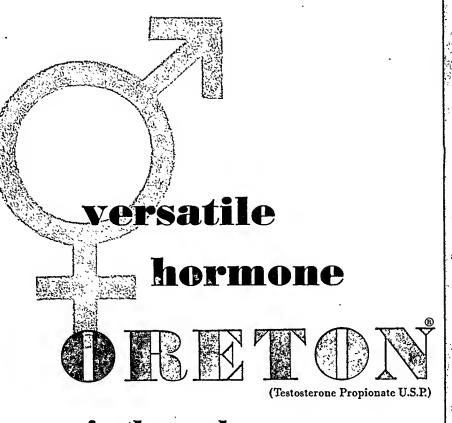
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Smith, Kline & French Laboratories, Philadelphia

\*Trademark



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### in both sexes

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SUBSCRIPTION-Journal of the American ANNUAL SUBSCRIPTION—Journal of the American Pharmaceutical Association, complete (both editions): United States and Pan America \$7; Canada \$7.70; other foreign \$8; memhers of the American Pharmaceutical Association with ducs, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition: United States and Pan America \$4; Canada \$4.35; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Canada \$0.40; other foreign \$4.50 foreign \$0.50.

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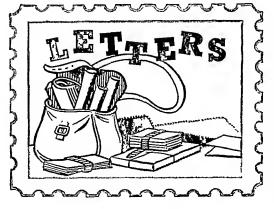
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Nome	•
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#### Sirs:

It is with price that I renew my membership in our organization. I have the assurance that the A. Ph. A. will persist in keeping pharmaey on the road that leads to fulfillment of our obligations and prerogatives.

New York, N. Y.

HYMAN RUTKIN

#### Sirs:

As the years pass, I see a great deal of improvement in pharmacy. I have confidence that much of this improvement is due to the efforts of the Association members and officials.

Cuba City, Wis.

HENRY A. SCHUMAKER

#### Sirs:

I would like to take the opportunity, as a member, to thank you for the kind and volume of work you have contributed for the benefit of our profession.

New York, N. Y.

С. А. Воті

#### Sirs:

In pharmacy, nothing compares to membership in the American Pharmaceutical Association. The yearly dues are a small price to pay for membership in such a fine organization.

You are doing fine work for the pharmaeists of the United States.

Winter Park, Fla.

WILLIAM S. BRIRY

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#### Sirs:

I have enjoyed being a member of the American Pharmaceutical Association. I think that the Journal of the A. Ph. A. is the best pharmacy publication that I have ever seen. I feel that the Association has done more for the individual pharmacist than any one association has done for other professions.

San Diego, Calif.

HORACE S. FIELDER

#### Rx Refill Stand Approved

#### Sirs:

Although I am not an American pharmacist, I wish to compliment your Association for the action it has taken on prescription renewals.

It must be borne in mind that quite often a body, at times a government body, starts to take action to which it is not legally entitled. If this situation is allowed to go on, the custom acquires legal value. It is the duty of the people to protest any diminution of their rights. Independence is never given; it must be fought for.

I am interested in all the activities our American colleagues undertake on a professional level. Pharmacy Week, for this reason, seems a splendid institution.

Beirut, Lebanon

Ezra E. Farhi

#### Sirs:

Congratulations on your work with the Food and Drug Administration and your stand on prescription renewals.

Toledo, Ohio

CARLETON S. SIEGAL

#### Diabetes Detection Drive

#### Sirs:

This is just a note to express to you for myself, and on behalf of the American Diabetes Association, our sincere appreciation for your splendid cooperation in the 1950 Diabetes Detection Drive.

The assistance you gave us in the professional relations aspect of our Drive was of inestimable value in our health education and case finding program. As you know, the problem of health education is one which reaches deep into the heart of all communities and our Drive would not be possible without the assistance of organizations such as the American Pharmaceutical Association.

There were many fine comments about the September and October issues of the Journal of the American Pharmaceutical Association.

Again, please accept our deep appreciation.

New York, N. Y. J. Richard Connelly
Executive Director
American Diabetes Association

#### Wants To Maintain Contact

#### Sirs:

The payment of my A. Ph. A. dues this year assumes a particular significance for me, since I have recently been recalled to active duty as a petty officer with the U. S. Nayal Reserve.

Inasmuch as my work in the Navy will be entirely unrelated to the practice of pharmacy, I am enclosing my check with the hope that, in this small way, not only can I support professional pharmacy, but I can also maintain contact with it while in the service.

Brooklyn, N. Y.

WILLIAM A. GOODMAN



## CLINITEST

#### to your physicians

Detection of diabetes, speedily and accurately, is a public service and opens up new avenues of business for you.

Every detected diabetic is a likely purchaser of insulin, syringes, needles, etc. — and Clinitest for daily checking. Patients, too, know the value of Clinitest (Brand) Reagent Tablets, for they find them convenient, accurate and rapid — excellent for helping to control their diabetes.

Order now – the new Universal Model Clinitest (Brand) Urine-sugar Analysis Set No. 2155, containing 10 Clinitest Reagent Tablets, Sealed in Foil. Refills are optional: No. 2157: Sealed in Foil Tablets, boxes of 24.

No. 2107: Tablets, bottles of 36.

Clinitest Urme-sugar Analysis Set No. 2106 with the bottle of 36 tablets will continue to be available.

The direct sale of Ames products is restricted to the wholesale drug trade. Your wholesaler will allow a 10% discount on all orders of \$50 or more at wholesale list price.

Clinitest, trademark reg.

AMES COMPANY, INC • ELKHART, INDIANA
Ames Company of Canada, Ltd., Toronto





Product descriptions may be elipped and filed on three- by five-inch eards. These are also indexed for quiek reference in the "Monthly Drug Index" appearing on the last page of each issue. A product is described in this column for the information of pharmacists who may be asked by physicians to slock the drug, or who may receive professional inquiries about it. A listing does not imply evaluation or recommendation by the Association, nor does omission of any product have significance concerning its merit.

#### AMPAVE TABLETS

Description: Tablets, each containing amplictamine phosphate, 5 mg.; and caffeine, 30 mg.

Form Supplied: Bottles of 100 and 1000 tablets. Action: Indicated in the control and treatment of narcolepsy and depression.

Administration: One to 6 tablets daily.

Source: Sharp & Dohme, Inc., Philadelphia, Pa.

#### AOUASOL A CAPSULES

Description: Soft gelatin capsules containing solubilized vitamin A; marketed in two potencies, 25,000 and 50,000 units per capsule.

Form Supplied: Bottles of 100 and 1000 eapsules. Action: Indicated in treatment of vitamin A deficiencies, especially in patients unable to tolcrate oily solutions of vitamin A.

Administration: One, two, or more capsules as required by the individual patient.

Source: U. S. Vitamin Corp., New York, N. Y.

#### BAR-DON ELIXIR AND TABLETS

Description: Tablets, or 5 cc. of elixir, containing: hyoscyamine hydrobromide 0.1 mg.; hyoscine hydrobromide 0.007 mg.; atropine sulfate 0.02 mg.; and phenobarbital sodium 16.7 mg. (A teaspoonful of elixir or one tablet is equivalent to approximately 5 minims of tincture belladonna.)

Form Supplied: Pint and gallon bottles and bottles of 100, 500, and 1000 tablets.

Action: Indicated in treatment of spasmolysis, intestinal colic, peptic ulcer, spastic colitis, ureteral colic, spastic cystitis, astlima, and motion sickness.

Administration: Adults: one teaspoonful to one tablespoonful, or one to three tablets before meals. Children: 1/4 to one teaspoonful, or 1/4 to one tablet, three or four times daily.

Source: Warren-Teed Products Co., Columbus 8, Ohio.

#### BENTYL HYDROCHLORIDE PLAIN AND WITH PHENOBARBITAL CAPSULES

Description: Capsules, each containing 10 mg. of Bentyl, brand of dicyclomine (diethylaminocarbethoxybicyclohexyl) hydrochloride. Capsules of Bentyl with phenobarbital, each containing dicyclomine hydrochloride 10 mg. with phenobarbital 15 mg.

Form Supplied: Bottles of 50 eapsules.

Action: Antispasmodie. Indicated in treatment of disorders of the gastrointestinal tract and primary dysmenorrhea.

Administration: One or two capsules three times daily, before or after meals; if necessary, repeat dose at bedtime.

Source: Win. S. Mcrrell Co., Cincinnati, Ohio.

#### BEVIDOX CONCENTRATE DULCETS

Description: Candy medication designed for administration to children. Tablets, each containing Bevidox Concentrate equivalent to 10 micrograms of vitamin Br.

Form Supplied: Bottles of 100 tablets.

Action: Indicated in treatment of macrocytic anemias other than pernicious anemia.

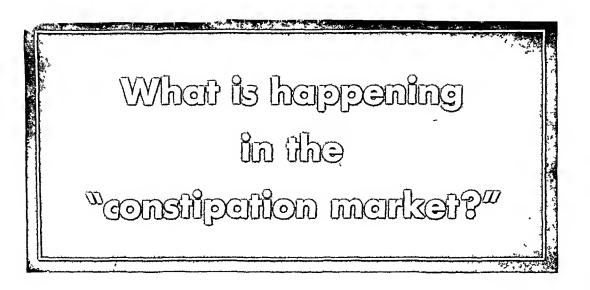
Administration: As a growth factor, 10 micrograms daily in children. As a hematinic agent, 30 mcg. or more weekly, depending on the condition of the patient.

Source: Abbott Laboratories, N. Chicago, Ill.

#### B-FOLIDOX CAPSULES

Description: Capsules, each containing Bevidox Concentrate, equivalent to vitanin B<sub>12</sub>, 25 micrograms, and folic acid, 1.7 mg.

(Continued on Page 74)



Recent reports in medical journals confirm what many a pharmacist's inventory tells him: that the trend in constipation correctives is toward

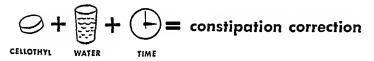
## Cellothyl brand of methylcellulose, especially prepared by "THE CHILCOTT PROCESS"

A new kind of bulk preparation: Cellothyl passes through most of the g. i. tract in a fluid state without swelling in the stomach. Upon reaching the colon, it has thickened to a gel to provide bulk only where bulk is needed.

In tests at the Mayo Clinic, Cellothyl was found to correct life-long constipation in a matter of days. It proved equally effective in simple, uncomplicated constipation in routine office practice.<sup>2</sup>

More and more physicians find that Cellothyl corrects constipation in a few days when taken with adequate water. In stubborn cases, a return to normal function may require a week to 10 days.

1. Gastroenterology <u>18</u> 273 [Oct ) 1949. 2. N Y. State J. Med. <u>48</u> 1822 (Aug ) 1918





#### CHILCOTT Laboratories

MORRIS PLAINS, NEW JERSEY

#### NEW PRESCRIPTION PRODUCTS

#### B-Folidox Capsules • • • • • from page 72

Form Supplied: Bottles of 100 capsules.

Action: Indicated for use as a hematinie agent and as replacement therapy for vitamin B12 and folic acid deficiencies.

Administration: Usually one tablet daily or on alternate days, dosage depending on the severity of the disease being treated.

Source: Abbott Laboratories, N. Chicago, Ill.

#### CRYSTALLINE

Description: Aurcomycin Crystalline Dental Cones, Aureomycin Crystalline Dental Paste, and Aureomycin Crystallinc Soluble Tablets: indicated in the treatment of bacterial infections commonly encountered in dental surgery.

Form Supplied: Cones: Vials of 12 (5 mg.). Paste: Jars of 5 gm. Tablets: Vials of 40 (50 mg.).

Action: Designed for dental use.

Administration: As directed by the dentist.

Source: Lederle Laboratorics Division, American Cyanamid Company, Pearl River, N. Y.

#### DOCEHEMA CAPSULES

Description: Gelatin eapsules, each containing ferrous sulfate exsiccated 129.0 mg.; folie acid 0.5 mg.; vitamin B<sub>12</sub> 4.0 mierograms; aseorbic acid 50.0 mg.: and insoluble liver fraction 192.0 mg.

Form Supplied: Bottles of 100 capsules.

Action: Indicated in the treatment of ancmias.

Administration: Five to eight eapsules daily or as directed by physician, dosage depending upon the hematological response of the patient.

Source: International Vitamin Division, Ives-Camcron Co., Inc., New York 16, N. Y.

#### DUCOBEE SOLUTION

Description: An injectable solution containing in each cc. 30 micrograms of crystalline vitamin B<sub>12</sub>.

Form Supplied: 10-cc. vials.

Action: Treatment of pernicious anemia, macrocytic anemias and sprue.

Administration: Intramuscularly.

Source: George A. Breon & Co., New York 18, N. Y.

#### GERIPLEX KAPSEALS

Description: Capsules, each containing: vitamin A, 5,000 units; vitamin B<sub>1</sub>, 5 mg.; vitamin B<sub>2</sub>, 5 mg.; nicotinamide, 15 mg.; vitamin C, 50 mg.; choline dihydrogen citrate, 20 mg.; mixed tocopherols, 10 mg.; and rutin, 25 mg.

Form Supplied: Bottles of 100 and 500.

Action: Indicated as a daily supplement for pre-

vention of vitamin deficiencies, particularly for aged patients.

Administration: One kapscal daily or more as directed by physician.

Source: Parke, Davis & Co., Detroit 32, Mich.

#### HEPATINIC TABLETS

Description: Tablets, each containing: ferrous sulfate, 167 mg.; liver concentrate, 333 mg.; vitamin B<sub>12</sub>, I microgram; thiamine hydrochloride, 1 mg.; riboflavin, 2 mg.; and niacinamide, 10 mg. Each tablet represents 5 cc. of elixir hepatinic.

Form Supplied: Bottles of 50, 100, and 1,000 tablets.

Action: Indicated in secondary or hypochromic aneinias.

Administration: As directed by physician.

Source: MeNeil Laboratorics, Inc., Philadelphia 32. Pa.

#### KHELLOYD TABLETS

Description: Tablets, each containing 50 mg. of purified khellin.

Form Supplied: Bottles of 50, 250, and 1000 tablets.

Action: Indicated as an aid in preventing attacks of angina pectoris or brouchial astlima.

Administration: As directed by physician.

Source: Lloyd Brothers, Pharmaeists, Inc., Cincinnati 3, Ohio.

#### METHISCHOL CAPSULES AND SYRUP

Description: Average daily therapeutic dose of nine capsules or three tablespoonfuls provides: choline dihydrogen eitrate 2.5 Gm. (present in syrup as 1.15 Gm. cholinc eldoride); dl-methionine 1.0 Gm.; iuositol 0.75 Gm.; vitamin B<sub>12</sub> 9 mcg.; and liver concentrate and liver fraction 2 from 36 Gm. liver.

Form Supplied: Bottles of 100, 250, 500, and 1000 capsules; 16-ounce and one-gallon bottles.

Action: Indicated in the treatment of functional and morphological disorders such as cirrhosis, functional liver impairment, infectious hepatitis, etc.

Administration: Average daily therapeutic dose of nine eapsules or three tablespoonfuls of the syrup.

Source: U. S. Vitamin Corp., New York, N. Y.

#### PENICILLIN-STREPTOMYCIN OINTMENT, VETERINARY

Description: Ointment containing, in each 7.5 Gm., 100,000 units of potassium penicillin-G and 50 mg. of streptomycin (as the sulfate).

Form Supplied: Single dose, 7.5 Gm. applicator tubes in boxes of 12.

(Continued on Page 76)

## a revolutionary new therapy for cases of **peptic ulcer** resistant to other treatment

Intensive research and clinical study demonstrate that KUTROL is remarkably effective in chronic, recurrent, intractable peptic ulcer.

#### THESE ARE THE RESULTS THAT HAVE BEEN OBTAINED:

Beneficial response in up to 70 to 80 per cent of cases.

Relief of symptoms and healing of ulcer, often within 3 to 6 weeks.

Normal 3-meals-a-day schedule soon after treatment begins.

No toxicity, idiosyncrasy, or intolerance.

Because of these outstanding advantages of KUTROL, Parke-Davis is now intensively promoting it to all physicians.

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UROENTERONE, PARKE-DAVIS

Remember! Almost every physician has at least one case of intractable peptic ulcer among his patients. For such cases he'll be prescribing... and you'll be dispensing...KUTROL.

Supplied as KUTROL Kapseals,® 75 mg., bottles of 100.

PARKE, DAVIS & CO.



DETROIT 32, MICHIGAN

#### NEW PRESCRIPTION PRODUCTS

Penicillin-Streptomycin • • • from page 74

Action: Indicated in the treatment of acute and chronic boyine mastitis.

Administration: Instillation into the udder, as directed by the veterinarian.

Source: Abbott Laboratories, N. Chicago, Ill.

#### SORLA-BILEIN CAPSULES

bladder disease.

Description: Capsules, each containing Sorlate (polysorbate-80) 0.4 Gnr., Bilein (purified ox bile) 30 mg., and dehydrocholic acid 30 mg.

Form Supplied: Bottles of 100 and 1000 capsules.
Action: Designed for the increased absorption
of dietary fat and for improved function of the biliary
tract and indicated in the control of functional gall

Administration: Twelve capsules daily divided equally with meals.

Source: Abbott Laboratories, N. Chicago, Ill.

### THENYLENE HYDROCHLORIDE SOLUTION, VETERINARY

Description: An injectable solution containing 25 mg. of Thenylene Hydrochloride (methapyrilene hydrochloride) per ec.

Form Supplied: Multiple-dose vials containing 50 cc.

Action: Intended for treatment of certain domestic animal diseases, such as equine and bovine laminitis and cutaneous allergies.

Administration: Intramuseularly or subcutaneously.

Source: Abbott Laboratories, N. Chicago, Ill.

#### THERYL SUBLINGUAL TABLETS

Description: Tablets, each containing: acetylsalicylic acid, 324 mg.; and saccharin, 8 mg., in a flavored, fast-disintegrating base.

Form Supplied: Bottles of 100 and 500 sublingual tablets.

Action: For use as an analgesie in pre- and postoperative pain and to relieve simple headaches, simple colds, toothaches, etc.

Administration: One or 2 tablets allowed to disintegrate in mouth with swishing (1 to 2 minutes).

Children: One-half tablet as above. No water re-

quired.

Source: Church Chemical Co., Chicago 1, Ill.

#### TRICOMBISUL LIQUID

Description: A suspension, containing in each 4 ec., 0.166 Gur. each of sulfacetimide (solubilized), sulfadiazine and sulfamerazine, a total of 0.5 Gm. combined sulfanamides.

Form Supplied: 16-ounce hottles.

Action: Oral sulforamide therapy.

Administration: As directed by physician,

Source: Schering Corp., Bloomfield, N. J.

#### Other New Products

(Chemicals, clinical trial drugs, diagnostic aids, and equipment)

#### Simplastin—New Type of Thromboplastin

A new type of thromboplastin, known as "simplastin," has been devised. It is a dried extract of thromboplastin which, it is stated, eliminates all the objectionable features of the older type of thromboplastin and in addition retains its potency in storage. It is made ready for use by the addition of distilled water. Simplastin simplifies the prothrombin test so that, it is said, it can now be performed in practically every hospital laboratory and in many physicians' offices. It is stated that this should permit every elimician to administer Dicumarol, the established anticoagulant drug, with confidence and safety to the patient. As a consequence it should be possible to bring Dicumarol to all patients who might benefit by the treatment.

Surgeons and obstetricians in the future may demand that the prothrombin test be made regularly. Some uses for the test will be to detect liver disease, the toxic effects of X-radiation, industrial poisons and of the new therapeutic agents ACTH and cortisone.

Manufactured by Chilcott Laboratories, Morris Plains, N. J.

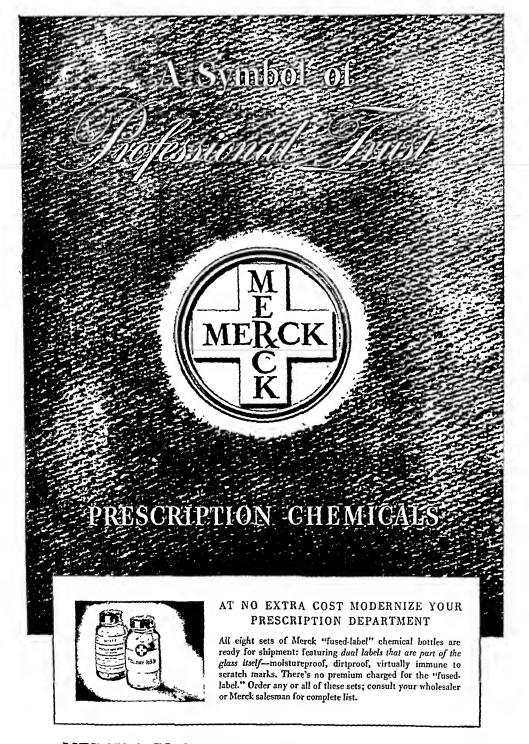
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In the broader sense, the success of the Lilly Policy can be attributed to the fact that it is in profound harmony with natural laws. It benefits everybody it touches. It is founded on certain fundamental principles which guarantee each branch of the health services the right to function in its own field. It reserves for the physician the right to prescribe, for the pharmacist the right to dispense, the right to dispense, it is naturalness and simplicity of the Lilly Policy contribute to its universal acceptance.

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## Journal of the

# AMERICAN PHARMACEUTICAL ASSOCIATION



VOL. XII, NO. 2 CONSECUTIVE NO. 3

## Practical Pharmacy Edition

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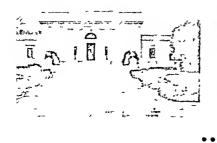
#### FEBRUARY, 1951

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## STRAIGHT FROM HEADQUARTERS



### By ROBERT P. FISCHELIS, Secretary AMERICAN PHARMACEUTICAL ASSOCIATION

#### OUR NEXT CONVENTION

The cover of this issue of our Journal shows a section of the city of Buffalo, N. Y., which will become familiar ground to several thousand members of the American Pharmaceutical Association in a little more than six months from now. It shows the Niagara Square with the Hotel Statler, Headquarters for the Convention, in the background.

Very soon the individual members of the Association will receive by mail the customary announcement of the preliminary program and plans for the Convention and the form for making hotel reservations. It is requested that members await the receipt of the form before making reservations. There will be ample room at the headquarters hotel and other first-class hotels nearby to accommodate all who will attend.

Meetings of the American Pharmaceutical Association and its affiliates have been held in late April and early May for the past two years but the House of Delegates voted last year to return to the late summer conventions. So we shall meet in Buffalo from August 26 to 31, inclusive. The American Association of Colleges of Pharmacy, the National Association of Boards of Pharmacy, the American Society of Hospital Pharmacists, the American College of Apothecaries and the National Conference of State Pharmaceutical Secretaries will usher in the Convention activities with meetings beginning, in some cases, as early as August 25.

The tentative schedule calls for the American Association of Colleges of Pharmacy to begin its meetings on Sunday

afternoon, August 26, and continuing until Tuesday afternoon, August 28. Teachers' conferences will meet on August 27 and 28 as a part of this program.

The National Association of Boards of Pharmacy is scheduled to begin its sessions on Monday morning, August 27, and continue until Tucsday afternoon, August 28, with the customary joint dinner of the two organizations scheduled for Monday evening, August 27.

The American Society of Hospital Pharmacists is expected to begin its convention with a meeting of its House of Delegates on Sunday, August 26, to be followed by the regular sessions of the Society on the following Monday and Tuesday. The same schedule will probably be followed by the American College of Apothecaries.

It has not been determined whether the Conference of Secretaries will begin its sessions on Saturday, August 25, or Sunday, August 26. Executive committees of the various groups will meet on Saturday, August 25, and possibly earlier.

Sessions of the American Pharmaceutical Association will get under way on Tuesday evening, August 27, and continue through Friday, August 31, and may possibly run to Saturday noon, September 1, depending upon arrangement of the entertainment features. Niagara Falls and other attractions in and near Buffalo offer splendid opportunity for combining vacation plans with the opportunity to meet with representatives of all branches of pharmacy for discussions on the current problems of the profession.

The Sections of the Association will meet on Wednesday, Thursday and Friday of the

The program of the convention week. Scientific Section calls for four sessions, two on Wednesday and one on each of the following days.

The Practical Pharmacy Section, the Section on Education and Legislation, the Section on Historical Pharmacy and the Section on Pharmaceutical Economics are each expected to hold three sessions.

Fraternities and special groups are planning to schedulc lunchcons, dinners and meetings at various times which do not conflict with the general sessions of the Asso-CIATION and the meetings of its House of Delegates. The former are scheduled tentatively for Tuesday evening, August 28, Thursday morning, August 30, and Friday evening, August 31.

Pending receipt of the hotel reservation form and other details by letter, members of the Association are asked to plan their vacation itinerary to reach Buffalo in time for the special meetings in which they are interested and to plan to give from August 28 to 31 to the sessions of the A. Ph. A.

#### DOCTORS OF PHARMACY

Word comes from the College of Pharmacy of the University of Southern California that it has inaugurated a six-year program of pharmaceutical education which will lead to the degree of Doctor of Pharmacy. Thus, another recommendation of the Pharmaccutical Survey has been taken seriously, at least by one college of pharmacy.

The educational system of the State of California lends itself readily to the development of this course of instruction. California is the leading state in the development of junior colleges. It will be recalled that the President's Commission on Higher Education, in exploring the direction of progress in education, pointed out that within a decade of the report which it made several years ago, high school education would no longer be the terminal of a majority of young men and women who are able to absorb further education. It was pointed out that the junior college would be the terminal sought by a very large number of our boys and girls, and this development fits in very well with recent thinking in the field of professional education where it is considered that a

general college education is the best preparation for the professions.

Of course, there are many pharmacists who feel that the four-year course leading to the Bachelor of Science degree and based upon a minimum preliminary education; amounting to four years of high school, is sufficient preparation for the practice of pharmacy. There are others who have disagreed with this position, fceling that in a day and age when men and women who go into general business are taking four-year courses in business administration, it is to be expected that those who enter the professions will have a more extended and better cultural background.

There has been considerable argument about the desirability of reviving the degree of Doctor of Pharmacy, which lost its respect when a few colleges gave it for two and three years of under-graduate education, with no preliminary education at the college level.

Those who have argued in favor of reviving the Doctor of Pharmacy degree base their reasoning on the fact that Doctors of Medicine and Doctors of Dentistry are graduated on four years of professional training, based upon a preliminary education of two or more years at the college level.

The principal objection to granting the Doctor of Pharmacy degree after six years of work at the college level comes from those who have looked upon the degree of Doctor of Philosophy as the graduate degree to be given for work beyond the undergraduate course in pharmacy. They perhaps overlook the fact that Doctors of Medicine and Doctors of Dentistry who go into research and teaching, take post-graduate courses which frequently lead to the degree of Doctor of Philosophy or Doctor of Public Health. preceded at times by a Master of Science degree.

The American Pharmaceutical Assoc-IATION has not expressed itself on the desirability of conferring the degree of Doctor of Pharmacy after a six-year program, such as has now been inaugurated at the University of Southern California, but it will watch the development of the course which has been started in Los Angeles with considerable interest. Here, as in other matters, it is well to have some pioneers who are willing to experiment, and we hope that Dean Alvah Hall and the faculty of the

College of Pharmacy of the University of Southern California will make available the results of their experiment as it progresses, so that those who are more conservative in their procedures may have the benefit of the findings of those who are willing to pioneer.

#### F. D. A. RULING DELAYED

It was our hope that we could announce in this issue of the Journal the final ruling of Federal Security Administrator Ewing on the interpretation of the Federal Food, Drug, and Cosmetic Act with respect to the refilling of prescriptions. However, at this writing the ruling has not been issued. Various pharmaceutical associations and individuals have filed statements with the administrator, most of them requesting recognition of the fact that telephones are used very largely in communicating prescriptions between physicians' offices and pharmacies.

Early this month, Congressman Durham has called into consultation representatives of the associations of manufacturers and of the N. A. R. D. and A. Ph. A. to discuss revision of the bill which he introduced at the last session of the Congress.

There has been sufficient public discussion on the provisions of the Durham-Humphrey Bill of the last Congress to indicate that there is considerable opposition to some of the provisions of this bill. Congressman Durham, wise and experienced legislator, has taken cognizance of the criticisms leveled at the former bill and will doubtless revise this measure before it is introduced again.

One of the main issues in this controversial matter is the authorization of oral prescriptions. Another issue is whether the food and drug administration or the manufacturer is to determine which drugs are to be supplied on prescription only and which are to be made available for sale to the public without prescription.

In the meantime, the annual report of the Food and Drug Administration has been issued, and the Commissioner of Food and Drugs again makes the general statement about deaths, injuries, broken homes, human derelicts and other tragedies being caused by promiscuous sales of dangerous drugs. He points out that more of these alleged trage-

dies are caused by violation of the provisions of the act which prohibit the sale of dangerous drugs without prescription, than by all the other violations of the Food and Drug Act put together. No doubt this statement is based on some statistical data, but these data are not revealed. It would be interesting for all of us to know how many deaths, how many injuries, how many broken homes, resulted from the small number of violations and prosecutions reported.

When it is remembered that there are over 50,000 retail pharmacies and less than 100 reported violations, one must wonder why it is necessary for the Commissioner to continuously cast reflections upon pharmacies with such general statements. And one cannot escape the conclusion that they are put into reports and press releases for the

purpose of eatching headlines.

Our readers know that we have been printing the record of all of the violations that have been reported by the Food and Drug Administration from month to month. Only a very few of these violations involve supplying dangerous drugs via prescriptions. Practically all of these eases deal with the sale of dangerous drugs over the counter without a prescription, and no self-respecting pharmaeist eondones this kind of action on the part of anyone in the profession.

#### COMMENT ON BY-LAWS DESIRED

Chairman B. V. Christensen of the Committee of Six and the Committee on Constitution and By-Laws requests all active members of the American Pharmaceutical Association who have any comments or suggestions to offer on the proposed revision of the By-Laws, to send them at once to the Association office for transmittal to the Committee. The proposed amendments to the By-Laws were submitted at the 1950 Convention and supplied to all members in advance of that meeting. They were fully discussed at a special session of the Convention and final action was postponed to the 1951 Convention.

The Committee will meet in the near future for further consideration of the suggestions offered at the Atlantic City Convention and on other suggestions received subsequently by mail.

### THE HYDROPHILIC **ABSORPTION**

### **OINTMENT** BASES

#### By ALFRED MALPERN\*

THE extemporaneous compounding of ointments containing some quantity of water usually involves the use of an absorption base. Recent years have witnessed the introduction of a wide variety of such ointment bases, and many reports have appeared describing their properties; hence, it was decided to examine some of those that have been suggested for general pharmaceu-

Most of the commercially available absorption bases consist of simple mixtures of petrolatum and an emulsifying agent, such as the fatty alcohols, cholesterol, cholesterol esters, the fatty acid esters of polyhydroxyalcohols and the di- and triethanolamine soaps. More complex absorption bases are Hydrophilic Petrolatum U.S.P., the base of Johnston and Lee (Basc F) (1), and Polysorb.† These bases are firmer, with a melting point slightly higher than the simpler mixtures. The bases chosen for this study, with their composition, are shown below:

ABSO	RPTION-TYPE OINTMENT EVALUATED	BASES
Bases	Ingredients	
A	Stearyl acohol Petrolatum	6 94
В	Tricthanolamine Oleate Petrolatum	10 90
C	Aquaphor	
D	Hydrophilic Petrolatum, U. S. P.	
Е	Polysorb—"Sorbitansesquioleate wax-petrolatum mixture"	in a
F	Cholesterol Cholesterol Stearate Wool Fat Petrolatum	3 3 25 69

The physical properties of the bases studied are described in Table I. The water

TABLE I-THE PHYSICAL PROPERTIES OF THE ABSORPTION BASES

Base	Melting Range, °C.	Consistency	Spreading Properties <sup>b</sup>	Interfacial Tension at 50°, Dynes/Cm.
A	38-42	Soft	Fair	8
В	36-40	Soft	Good	4.
C	36-40	Soft	Fair	8
D	40-45	Firm	Good	6
$\mathbf{E}$	38-42	Firm	Excellent	đ
$\mathbf{F}$	40-45	Firm	Excellent	2~3

<sup>&</sup>quot;Firm" that of a finished ointment ry and damp skin. Nouy Interface Tensiometer.

\* Associate Professor, Duquesne University School of Phar-

numbers (a measure of amount of water that can be absorbed) of these bases were determined in the usual way (2) and, in a similar manner, the absorption of an acid solution (saturated solution of boric acid), an alkaline solution (U. S. P. buffer solution, pH 8.5)

d Too small to measure

<sup>&</sup>quot;Associate Professor, Duquesne University School of Pharmacy,
A contribution from the Duquesne University School of
Pharmacy presented before the Practical Pharmacy Section,
AMERICAN PHARMACEUTICAL ASSOCIATION, 1950 meeting,
Atlantic City.
† Registered trademark of E. Fougera & Co., Inc., N. Y.,
U. S. Patent 2,372,807.

and an electrolyte solution (5% potassium iodide). Absorption values are reported in Table II.

scriptions. When a solution of a drug or a soluble agent was used, it was diluted with the calculated equivalent of water to pro-

TABLE II-THE ABSORPTION PROPERTIES OF THE BASES

	Cc per 100 Gm of Base							
Base	Water	Satd Soln Boric Acid		Soln of KI-5%				
A	45	40	38	30				
В	260	230	$80^{a}$	$60^{a}$				
С	120	110	93	80				
D	170	165	142	110				
$\mathbf{E}$	960	880	900	810				
${f F}$	730	685	715	670				

a The emulsion broke after the indicated quantity of water was incorporated

The stability of these hydrated bases was studied at one-half and maximum hydration levels, by storing the preparations at 10°, room temperature, and 35°. The stability was determined by the centrifugal method of Hollenberg (3). The bases were examined daily for a period of one month and a small portion was removed each day to simulate the conditions of use.

These ointment bases are often employed as a small part of the lipophilic phase of an emulsified base. In these instances the ratio of the emulsifying agent to the petrolatum and water is greatly reduced, sometimes altering the stability of the hydrated base. To test this effect, 5% of the absorption base in petrolatum was hydrated with the calculated maximum equivalent of an acidic, basic and electrolyte solution (from Table II), and the stability was determined at room temperature. Results are shown in Table III.

The compatibility of the different bases with some commonly used dermatological agents was studied using dermatological agents selected from actual ointment preduce the desired level of hydration and then incorporated into the base. With an insoluble ingredient, a primary emulsion was formed of the base and one-half the amount of water to be used, the active ingredient was then added and the remainder of the water incorporated. These bases were examined for stability daily during a period of twenty-one days. Compatibility evaluation is shown in Table IV.

#### Conclusions

The results of this study substantiate the soundness of using the compounded ointment bases such as the U.S.P. Hydrophilic Petrolatum, the Johnston and Lee Base. and Polysorb. Polysorb is the preferred ointment base because of its non-ionic character, complete compatibility with dermatologic agents and marked stability. The hydrophilic character of Polysorb further demonstrates the usefulness of this base because, for the first time, a single ointment base is able to serve all of the needs of the pharmacist as well as the physician with regard to water absorption, stability and compatibility with drugs.

TABLE III-THE STABILITY OF THE HYDRATED ABSORPTION BASES

	—Stal	olity Pe	$\operatorname{riod}^{a}$	_		Inture of Base $+$ Pe	t
		Days				——Days———	
Base	10°	R. T.	35°	Centrifuge*	Satd Soln Boric Aeid	Buffer Soln. pH 8 5	Soln. KI—5%
A	26	$12^b$	4 <sup>c</sup>	30 min	80	$6^b$	$1^{1/2^{c}}$
В	$5^b$	S	$13^c$	1 hr	S	$12^b$	$2^c$
C	$12^{b}$	$20^b$	$16^c$	30 mm	S	$18^b$	$16^c$
D	$14^c$	S	$24^b$	21/0 hrs	S	S	$12^c$
$\mathbf{E}$	S	S	S	d	S	S	S
$\mathbf{F}$	$13^c$	S	S	đ	S	$26^b$	S

<sup>\*</sup> According to the method of Hollenberg (3)

a At maximum hydration as determined from Table II

b The emulsion appeared to be unchanged but separated as soon as it was spread on the skin

c The emulsion separated into two phases

Stable after three bours of centrifuging at 3,500 r p m

No change during the entire test period

#### PRACTICAL PHARMACY EDITION

#### TABLE IV-THE COMPATABILITY OF THE BASES

Agent	Basc——					
	A	В	C	D	• E	$\mathbf{F}$
Aluminum Acctate Solution (10%)	F	G	G	E	Е	E
Benzoic Acid	G	$\mathbf{E}$	$\mathbf{E}$	E	$\mathbf{E}$	G
Boric Acid	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E
Calaminc	$\mathbf{E}$	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E
Camphor	G	$\mathbf{E}$	G	$\mathbf{p}$	$\mathbf{E}$	$\mathbf{P}$
Coal Tar	P	P	G	G	$\mathbf{E}$	$\mathbf{E}$
Coal Tar Solution	G	P	G	G	$\mathbf{E}$	E
Lead Subacetate Solution	G	P	G	G	$\mathbf{E}$	$\mathbf{E}$
Mcrcuric Oxide	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	${f E}$	$\mathbf{E}$
Mercury, Ammoniated	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E
Peru Balsam	P	G	P	G	$\mathbf{E}$	$\mathbf{E}$
Phenol	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E	E	G
Resorcinol	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E	$\mathbf{E}$	G
Salicylic Acid	G	E	E	E	$\mathbf{E}$	E
Sodium Propionate	$\mathbf{E}$	$\mathbf{E}$	G	$\mathbf{E}$	$\mathbf{E}$	E
Sulfathiazolc	$\mathbf{E}$	$\mathbf{E}$	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$
Undccylenic Acid	$\mathbf{E}$	$\mathbf{E}$	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$
Vitamins A and D	E	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	$\mathbf{E}$	E
Zinc Oxide	E	$\mathbf{E}$	E	$\mathbf{E}$	E	E
Zinc Pcroxide	E	$\mathbf{E}$	E	$\mathbf{E}$	Ε.	E

#### REFERENCES

Johnston, G. W., and Lee, C. O., J. Am. PHARM. Assoc. 32, 25 (1943).
 Halpern, A., and Zopf, L. C., Ibid., 36, 101 (1947).
 Hollenberg, I. R., Proc. Am. Toilet Goods Assoc., No. 8 (December, 1947), p. 1.



#### STREPTOMYCIN IN TREATMENT OF PULMONARY TUBERCULOSIS

Streptomycin has been shown to be of dcfinite value in treatment of pulmonary tuberculosis, according to a report recently published by the U.S. Public Health Service.\*

The carcfully controlled research, performed under the direction of the Tuberculosis Study Section of the Division of Research Grants and Fellowships, was carried out to determine the effect of adding streptomycin to other forms of treatment for pulmonary tuberculosis. Investigators in twelve hospitals in different parts of the country participated in the study.

Five hundred and forty-one cases of bacteriologically proved cases of pulmonary tuberculosis considered capable of significant improvement without streptomycin were chosen for study. All cases were managed under a common protocol, with uniform observations being made at uniform times.

The cases were divided at random into two groups. In one group, only conventional treatment was given. In the other group, streptomycin was given in addition to the other forms of therapy.

The two groups have been compared in this report on only the most important measures of change. Later reports will contain information on bacterial resistance and toxicity in the group in which streptomycin was given. Principal findings were:

- 1. At the beginning of the study, the two groups were similar.
- 2. By the end of 3 months, improvement had occurred in a much larger proportion of the streptomycin group.
- 3. At each succeeding point in time at which the two groups were compared, the superiority of the streptomycin group was marked, although the differences between the two groups became somewhat smaller.
- 4. The more favorable position of the cases in which streptomycin was given is evident for all measures on which the two groups were compared, namely, temperature, body weight, bacteriological status, amount of sputum, and changes demonstrable by X-ray.

E Tweelent' No there we ach weel in any of the properties of the base.

Figure The texture radic the rad in Aproporties of the base changed; the emulsion, however, was in good order.

Gate, the Achange of the physical conditions of the base, i. e., softening or grainness; the emulsion and spreading propert were unchanged.

P (Poor): The emulsion broke within 48 to 72 hours or the base was altered to the extent that it was not usable.

<sup>\*</sup> Long, E. R., and Ferebee, S. H., "A Controlled Investiga-tion of Streptomyein Treatment in Pulmonary Tuberculosis," Pub. Health Reports, 65, 1421 (1950).

## New Hope for Hearts

by Howard B. Sprague, M.D.

#### President, American Heart Association

Among the things that moncy cannot buy is a new heart to replace a sick one. But money can huy new hope for our hearts, for the bearts of our family, friends, and community.

The 1951 Heart Fund, which is being conducted throughout February, offers the American public an opportunity to aid in a very practical and effective way in the fight to protect the hearts of all our citizens against beart and circulatory disease. The heart diseases directly affect at least 10,000,000 men, women, and children in this country. causing some 637,000 deaths annually, or more than 44% of the total yearly death toll. Thus, since heart disease is the leading disabler and destroyer of life, it constitutes the most challenging public health problem facing America today.

To help deal with this challenge aggressively and effectively, the American Heart Association and its affiliates are seeking public support for a three-sided program of research, education, and community cardiac services.

Priority in this program goes to research, without which no substantial progress can he achieved. That is why the American Heart Association is dedicated primarily to producing fundamental scientific advances in the cardiovascular field.

Contributions to the 1951 Heart Fund represent, in great part, an investment in research with an expected return in basic knowledge of the causes and prevention of heart disease. A major portion of funds received from the public is earmarked for scientific investigation. During the past year, \$419,000 was expended hy the American Heart Association and an additional \$600,000 by its affiliates on research.

Research support has made possible significant progress in surgical treatment of abnormalities of the heart and circulation, prevention of recurrent attacks of rheumatic fever through penicillin prophylaxis, the use of anticoagulant drugs to decrease

dcaths caused by coronary heart discasc, ACTH and cortisone in the treatment of rheumatic fever and similar discases, and the knowledge of cholesterol molecules in the blood, which may furnish additional clues to the cause of hardening of the

arteries.

#### Heart Fund Campaign 1951

Pharmacists and pharmaccutical associations are urged to cooperate with their local heart associations in arranging for the display of posters and plastic beart banks and otherwise enlist the cooperation of the public in the campaign for funds for the American Heart Association during the month of February. Communicate with your local heart association or with the American Heart Association, 1775 Broadway, New York 19, N. Y., and offer your cooperation.

Education of professional groups and of the public, and stimulation of well-conceived programs of community cardiac services, putting to use available knowledge and existing resources, arc two other basic objectives of the Association and its affiliates. Professional education brings the physician up to date regarding scientific and clinical advances, aiding him in the early recognition, diagnosis, and treatment of heart discases. Lay education helps ebminate harmful fears, encourages the individual to seek early medical care, turns him toward rehabilitation instead of wasteful invalidism.

No finer gift could be made to an enemy of the United States than to abandon medical research at this time, es-

pecially in the field of heart disease.

The mounting toll of deaths due to cardiovascular discase plays havor with military aspects. The total number of deaths during every war the United States has been engaged in from the Revolutionary War through World War II do not equal the deaths from heart and circulatory disease last year. I would estimate that in 1951 ahout 750,000 persons may die in this country of heart or related diseases, or about ten times as many as were killed by the atom bomb at Hiroshima! During World War II, 40,000 men in the armed forces were inactivated by rheumatic fever. The cost was \$16,000 per case, or a total of \$640,000,000.

Continued progress in controlling heart disease will be assured through public support of the 1951 Heart Fund drive. "New Hope for Hearts" depends upon the generosity of the American heart, and the value we place upon it.



In the heart of the Vieux Carré, La Pharmacie Française recalls the ancient art of the apothecary and the legends of New Orleans' famous quarter

## La Pharmacie Française

de Louis Dufilho

The Pharmacie Française de Louis Dufilho rcopened its doors last October, after almost a hundred years, and once more old elixirs and love potions lined the shelves of the apothecary on Chartres Street where the boasts of buccaneer Jean Laffitte and the patois of the Creoles once echocd throughout New Orleans Vieux Carré.

The reopening climaxed years of work by the Loyola University College of Pharmacy and the Historical Commission of the City of New Orleans to establish a museum devoted to pharmacy. Finally, with the cooperation of Mayor de Lesseps Morrison and other civic-minded citizens of New Orleans, Dufilho's pharmacy was reestablished on the same site where Louis Dufilho, the first licensed pharmacist in America, sold his exotic drugs.

There's an old world charm in the Pharmacie Française with its baroque counters and shelves and marble-top counters. A mirror, large enough to reflect all of mademoiselle's wide crinoline skirt, dominates the interior. Magic elivirs, love potions,

and voodoo nostrums recall some of New Orleans mysterious and romantic past. These strange bottles are a token of the old apothecary's art and a clue to man's recurring problems, as their labels, "Love and Success," "Peace," "Gambler's Luck," promise an easy panacea to everyone.

True to the tradition of the Vicux Carré, the Dufilho's had a patio at the rear of the pharmacy. Today, it, too, is restored with its lacy, white, iron furniture and patches of peppermint, ginger, and herbs. The family lived on the fourth floor of the building and their apartment has also been reconverted. Interested pharmacists from all over the state have donated elaborate bottles and porcelain jars to stock the shelves of the first three floors. Encouraged as they have been by Dean John F. McCloskey and Dr. Edward J. Ireland of Loyola University, pharmacists have realized that the charm and romance of pharmacy's days-of-old blend into an appropriate, if contrasting, background for the modern, scientific pharmacy of today.

The Historical Pharmacy Commission in the old prescription workshop Front row: Mrs. Le Grand J Crumb, Mr. Vic Schiro, Dr Edward J. Ireland. Back row: Mr. Adam Wirth, Mr. Joseph Lucas, Miss Valerie Armbruster, Mr. Val Earhart, Dean John F. McCloskey, in front of President Thomas J. Shields, S.J., and Dr. George Urdang.



## BALTIMORE AND D. C. BRANCH MEETING FEATURES PANEL ON PRESCRIPTION REFILL PROBLEM

A panel discussion of the "Current Status of the Piescription Refill Problem" was the feature of the first annual joint meeting of the Baltimore and Washington, D C, branches of the American Pharmaceutical Association, held in Washington on January 12, 1951. Included in the attendance were members of the senior classes of the Colleges of Pharmacy of George Washington University and the University of Maryland

The capacity audience heard Mr. Wallace Jaussen, managing editor of F D C Reports, present the government viewpoint Pointing out that he was speaking only as a reporter, Mr Janssen stated that the Food and Drug Administration has already prosecuted in more than a hundred cases, several of which involved refills alone, and that it would continue to function in a law enforcement capacity where state laws to control prescription refilling were either not written or were not enforced.

In his portion of the panel discussion, George Frates, Washington representative of the National Association of Retail Druggists, briefly reviewed the stand of his association in regard to the Durham-Humphrey Bill

In presenting the viewpoint of the American Pharmaceutical Association, Secretary Robert P. Fischelis reviewed the background leading to the proposed regulations of the Food and Drug Administration with respect to prescriptions. Pointing out that the unlawful acts of a few pharmacists had been cited by the government as typical, Dr. Fischelis stated that these pharmacists were not at all typical of the profession, and said that the unethical practices of a few could give the whole profession of pharmacy a bad name and cause grave harm, as in

the instances so frequently quoted by the F.D.A.

Dr. Fischelis stated that the proposed regulations were not entirely satisfactory. He said that "the American Pharmaceutical Association has asked that the term, 'written prescription,' be interpreted so that the writing in the patient's case history in the physician's office, as well as the writing on the prescription blank, may satisfy the term, 'written prescription,' and that the original prescription or authorization of the renewal may be transmitted to the pharmacist by telephone."

Dr. Herbeit S. Gates, who represented the Medical Society of the District of Columbia, said that the use of the telephone between physician and pharmacist is justified in its entirety. "We [the medical profession] feel that we know the drugs and devices listed in the dangerous, toxic group requiring written prescriptions and we know that capable, ethical and reliable pharmacists also know the restricted drugs and devices, and that they will refill our prescriptions only upon our authorizations."

Mr. Royce Franzoni, of Washington, D. C., who participated as a practicing pharmacist, said that a regulation was needed that would be written in clear, understandable language that would aid the pharmacist, not confuse him or make him a technical violator through misunderstanding. Mr. Franzoni also said that he was opposed to the portion of the proposed regulations which prohibited authorization of refilling prescriptions by telephone.

Following the meeting, members and students visited the headquarters of the American Pharmaceutical Association and later the group met for dinner at the Builington Hotel. Lt. Col. Howard Nelson, a pharmacist, spoke on Civil Defense.

## CORTISONE PATENTS POOLED FOR DRUG INDUSTRY

Four chemical and pharmaceutical companies have concluded an important agreement involving patents used in the production of cortisone. The four companies are Ciba Pharmaceutical Products, Inc., Merck & Co., Inc., Organon, Inc., and Schering Corporation, all of whom own numerous patents involved in the present 37-step process for producing the cortical hormone important in the treatment of rheumatoid arthritis and other diseases.

Completion of the agreement unblocks a difficult patent entanglement covering the manufacture of cortisone from desoxycholic acid, a constituent of ox bile, and also makes it possible for other companies to obtain licenses.

#### HOWARD NELSON RECEIVES PROMOTION

Howard B. Nelson, presently on detached service with the National Security Resources Board, was recently promoted to the rank of full colonel in the Medical Service Corps of the U. S. Air Force.

Col. Nelson, now a regular Air Force officer, was one of the original members of the Army Pharmacy Corps, which preceded the Medical Service Corps. Since 1948, when he was loaned to the National Security Resources Board, he has been a key figure in planning for efficient mobilization of drug and pharmaceutical resources in the nation's over-all defense plans and took a leading part in the preparation of the manual entitled "Health Services and Special Weapons Defense."

#### SOCIAL HYGIENE ASSOCIATION AWARDS SNOW METAL TO BRUCE AND BEATRICE GOULD

National Social Hygiene Day, February 7, was heralded this year by the 38th annual meeting of the American Social Hygiene Association in Philadelphia on January 31, and the presentation of the association's William Freeman Snow medal for distinguished service to humanity to Bruce Gould and Beatrice Blackmar Gould, editors of the Ladies' Home Journal.

The American Pharmaceutical Association lias, for many years, joined the American Social Hygiene Association in its fight against the spread of venereal disease.

Last year, American physicians reported over 573,000 eases of VD; more than half of these were among boys and girls in their teens or early twenties. This figure, of course, does not represent the total number of VD sufferers. Ponicillin's effect has been widely broadcast, but the problem of finding those who are infected and persuading them to accept treatment still remains.

Dr. Norman R. Ingraham, Jr., chief of the Division of Vencreal Disease Control, Department of Public Health in Philadelphia, addressed the meeting on "National and International Problems in Venereal Disease Control," and Maj. Gcn. Merwin H. Silverthorn, assistant to the Commandant, U. S. Marinc Corps, and Mrs. Oswald B. Lord, a prominent leader in welfare work, discussed "Today's Crisis and Tomorrow's Families."

The American Social Hygieue Association depends on social welfare agencies and pharmacists to help it in its educational activities. With its slogan, "Safeguard Our Stronghold...the Family," the association has turned its attention to the long-range educational job of helping parents to train and guide young people on whom depend the vitality and the future of our country.

The present campaign extends through March and April in many localities. Pharmaeists who wish to take part in this public health program may secure poster material and leaflets from the association at 1790 Broadway, New York 19, N. Y.

### DISTRIBUTION OF PHARMACEUTICAL OILS

The distribution of liquid petrolatum and other petroleum products used for medicinal, pharmaceutical and cosmetic purposes has become a responsibility of the National Production Authority.

This function was formerly under the jurisdiction of the Petroleum Administration for Defense. The latter agency, however, will continue to be responsible for the extent of production of these products by the petroleum and gas industry.

## ADMIRAL BOONE NAMED VA MEDICAL DIRECTOR



Joel Thompson Boone

Vice Admiral Joel Thompson Boone, Medical Corps, United States Navy, Retired, was appointed Chief Medical Director of the Veteraus Administration by Carl R. Gray, Jr., Administrator of Veterans Affairs, effective April 1. He succeeds Dr. Paul B. Magnuson whose resignation

was announced by General Gray, effective January 15, 1951.

Dr. Magunson, a prominent orthopedic surgeon of Chicago, Ill., joined the VA and assisted in reorganization of its medical department soon after General Omar N. Bradley was appointed Administrator in 1945.

As Chicf Medical Director of the VA, Admiral Boone will be responsible for the care and treatment provided for veterans by the largest non-military medical organization in the world. To care for the siek and disabled among almost 20,000,000 veterans, the VA is authorized to operate 131,000 beds in 170 hospitals. In addition, it now has some 150 elinics to care for those who are eligible for outpatient treatment.

Admiral Boone, a veteran of both World Wars, has had a long and distinguished medical career. During World War I he was detached from the Navy for service with the Marine Corps in France and served through four eampaigns. It was then that he received the Congressional Medal of Honor. In World War II he served as Fleet Medical Officer, Third Fleet. He was the Naval Medical Corps Representative at the Japanese surrender ceremonies on the U.S.S. Missouri, and was one of three officers selected to liberate Allied prisoners of war in Japan. Admiral Boone has also received many citations for honorable and outstanding services to the nation.

In Mareli of 1919, Admiral Boone was assigned as Medical Officer aboard the presidential yacht Mayflower. In that capacity, and later as Physician to the White House, he served until 1933 as physician to Presidents Harding, Coolidge and Hoover.

Pharmaey affairs in the Veterans Administration continue under the direction of E. Burns Geiger, Chicf, the Pharmaey Division, Department of Medicine and Surgery, who succeeded Commander W. Paul Briggs in this office several years ago and has made an enviable record in the development of the Pharmaey Program in VA.

## ATOMIC WARFARE

### What it is — What it is not

"THE atomic bomb has added a new terror and devastating force to the arsenal of war."

This statement, contained in a message from Major General R. W. Bliss, Surgeon General of the Army, adequately sums up all that need be said in description of the atomic bomb. Significant in this statement are the words "new terror." There is no doubt that the atomic bomb is a producer of terror, but the same can be said for any destructive force. If the destructive force is understood by the general public, much of the terror and hysteria is removed. The first bow and arrow, the first cannon, the first rifle, the first machine gun, the first tank, the first aerial bomb—all have been producers of terror. But when the first fright had subsided, men calmly set about to devise means of defense, and although a great respect for the lethal powers of the new weapons remained steadfast, hysteria gave way to common sense.

So it is with the atomic bomb. Now that much of the mystery surrounding it has been removed and now that careful studies on its medical aspects have been released, the public is beginning to feel reassured. Its psychological effects have been magnified far in excess of the truth. Workers in the Pentagon Building in Washington, D. C., have received wallet-size cards containing information about what to do in case of attack. One sentence reads: "The war won't be over; get back to work."

The pharmacist is in an excellent position to act as a stabilizing influence on his community. Although this stabilizing influence cannot be measured in yardstick terms, probably the greatest good the pharmacist can do is to tell his neighbors and friends and customers the *truth* about atomic warfare. Its effects should not be underestimated, but the feeling of hopclessness held by all too many can be allayed in great measure by the pharmacist. Common sense will be of much greater value than a trainload of Geiger counters.

#### Atomic Explosion

Atomic bomb explosions differ from conventional bomb explosions in three important ways:

1. The explosive force released by an atomic explosion is vastly greater than that produced by the most powerful TNT bomb.

2. An atomic explosion rcleases, in addition to intense heat and light, highly penetrating, invisible radiations which are damaging to organisms.

3. Certain substances which may remain after the explosion are radioactive and emit radiations which are capable of producing harmful consequences.

The area of damage, the number and kinds of casualties, and the extent of radioactive contamination depend on the power of the bomb and how it is exploded—whether at high or low altitude, or under ground or water, whether on a clear or stormy day. The bombs dropped on Hiroshima and Nagasaki exploded at an altitude of about 2,000 feet on a clear day.

#### Number of Casualties

To estimate casualties, the Federal Civil Defense Administration has taken an "average" American city with a density population of 13,000 per square mile. It has assumed that the bomb will be exploded at an

The technical material used in this article was taken from authorized government publications which should be in the library of every pharmacist. These pampllets are: "What You Should Know About the Atomic Bomb," Army Medical Service, Washington 25, D. C. (free upon request); "Survival Under Atomic Attack." National Security Resources Board; "Medical Aspects of Atomic Weapons," National Security Resources Board; and "Health Services and Special Weapons Defense," Federal Civil Defense Administration. The last three publications may be obtained from the U. S. Government Printing Office, Washington 25, D. C. Prices are 10 cents, 10 cents, and 60 cents, respectively.

altitude of 2,000 feet, either day or night, with or without warning. It must be borne in mind, however, that the estimates are based on the Japanese experiences, and may be high. The Japanese were totally unprepared for any type of aerial attack, the bombs were exploded under ideal conditions, and public health facilities were almost nonexistent.

#### Estimates without Warning

An atomic bomb exploded at 2,000 feet over the "average" metropolitan area may eause 120,000 killed or injured. Of these, 40,000 (33<sup>1</sup>/<sub>3</sub>%) would either be killed outright or die the next day. Thus, 80,000 easualties would survive the first 24 hours. Burns would eause injury to 48,000 (60%); 40,000 (50%) would suffer mechanical injury; and 16,000 (20%) would be suffering chiefly from radiation injuries. The total of more than 100 per cent is because a person may receive more than one type of injury.

Experience after the Japanese attacks revealed that the number of deaths per weck, after the first day, was halved each week for seven wecks. Assuming that 40,000 deaths occurred on the first day, 10,000 deaths could be expected to occur in the week following the first day, 5,000 deaths the second week, and so on. Few deaths can be expected to occur after the seventh week.

Of the easualties surviving the first day, approximately one-third (25,000-30,000) would require hospitalization and extensive treatment; one-third would require hospitalization with a moderate amount of medical eare; and the remaining one-third would require little medical eare and could be given out-patient type of medical service.

#### Estimates with Warning

The Federal Civil Defense Administration has estimated that adequate warning of an impending raid would reduce the overall day-time easualties by at least one-half, provided that adequate instruction to the public has resulted in good discipline. In other words, the hypothetical figure of 120,000 easualties would be reduced to 60,000. For medical planning purposes, all other percentages can be divided by half, although the same proportion in regard to type of injury would remain the same.

In addition to differences in number of

easualties according to whether the population was warned, other variables must be considered. Hills would tend to shield certain areas from damage by blast, although the blast effects on up-slopes would be increased. Maximum destructive effects would be more likely in cities with level terrain. Fire-resistant and carthquake-resistant construction would tend to reduce all types of injuries, while buildings of frame or light construction would aggravate the general hazard.

#### Area of Damage

An atomic explosion would be effective up to a radius of 3 miles. At ground zero, or the point directly under the explosion, and at a radius of a half mile, almost total destruction with immediate or quick death to 90 per cent of the population would result; the remaining 10 per cent would be casualties. Adequate warning should reduce the number of deaths from 90 per cent to 75 per cent. The percentage of injured would rise to 15 per cent, because of the larger number of survivors. Injuries would be severe and of all types, including radiation.

Half to one mile radius—Fifty per cent would die and 35 per cent would be injured if no warning were given. With warning, about 30 per cent would die and 20 per cent would be injured. Injuries would be severe and of all types, including radiation.

One to one and one half mile radius—Without warning, 15 per cent of those in this area would die and about 40 per cent would be injured. With warning, about 5 per cent would die and 25 per cent would be injured. Burns would cause the most injuries, followed by mechanical injuries. Few radiation injuries would occur.

One and one half to two mile radius—Without warning, about 2 per cent would die and 18 per cent would be injured. With warning, less than 1 per cent would die and about 10 per cent would be injured. Mechanical injuries, mostly cuts from flying glass, would predominate. Burns would occur but would be greatly decreased in frequency and severity; no radiation injuries would be expected.

Two to two and one half mile radius— There would probably be no deaths directly from the explosion, with or without warning. Without warning, about 10 per cent will be injured; with warning, 5 per cent. Almost all injuries would be mechanical, and no radiation injuries would occur.

Two and one half to three mile radius— There would be no deaths from explosion. Without warning, about 5 per cent would be injured; with warning, probably not more than 1 per cent. Injuries would be almost wholly mechanical.

Beyond the three mile radius—No deaths, rare injury.

Outside the area of total destruction, which comprises a relatively small percentage of the total area in which damage and casualties occur, there is no question but that effective eivil defense measures could greatly reduce the number and severity of casualties. Important among these measures is adequate psychological preparation by thorough public education regarding the actual effectiveness of atomic weapons. This psychological preparation can be expected to prevent many casualties that would otherwise result from hysteria.

#### Injuries and Treatment

An atomic explosion can cause easualties by three principal means, namely, blast, burns, and radioactivity.

#### Blast Injuries

Blast injuries are of two kinds, direct and indirect. Direct blast injury is caused by a sudden increase in pressure that enters the body through the natural orifices and may injure the organs of the body. Based on the Japanese experiences, it is not expected that many, if any, injuries will be caused by direct blast.

Indirect blast injuries are eaused by flying debris, glass, masonry, timbers, and so forth, and eause a great many deaths. Practically all brick and light masonry buildings with weight-bearing walls in the blast area will be wreeked, wooden buildings flattened, and doors and partitions of so-ealled blast-resistant buildings blown out. People in or near these buildings will be injured or killed by eollapse of the structures and by the missile effect of the debris. Among such injuries will be crushing, fractures of bones, lacerations, and bruises. The mechanical injuries will be the same as those produced by other explosions.

Flying glass contributes a large share of the superficial injuries in any powerful explosion. In Japan, glass fragments penetrated over an inch. The clinical course of Japanese patients with mechanical injury only was not altered because injury had been caused by an atomic blast.

#### Rurns

Severe burns were eaused both by the radiant heat from the explosion of the atomic bomb (flash burns) and from the fires that broke out in the wreekage (flame burns). Those who looked directly at the burst apparently suffered only temporary dazzling and loss of vision, but no elear-cut evidence of harm to the eye was reported. Temporary blindness resulted when the intense light bleached out the substance within the eyeball called "visual purple," and persisted for several hours until the body could manufacture a new supply.

Flash Burns—Atomic bomb flash burns are distinctly different from those caused by other types of explosion, since they are due to radiant heat. They are readily distinguished because atomic flash burns are sharp in outline and are oriented to the point of the explosion. Shadow effects are prominent. An ear, for example, might be badly burned yet the skin behind the ear be unharmed.

Even loose clothing afforded some protection against atomic flash burns, and color also had a protective effect. White clothing tended to reflect the radiant heat, darker clothing to absorb heat. Burns sometimes were eross-hatched where light clothing was marked with dark lines. Tight elothing was less protection, and burns were inflicted at elbows and where straps crossed the shoulders, for example, while other places where elothing was loose were protected, or less severely burned.

Flame Burns—The flame burns in Japan mostly occurred when people were trapped in the wreekage of buildings which afterward eaught fire. A conflagration may be expected to follow any atomic bomb blast. Not only is the radiant heat sufficient to ignite wood and lighter materials, but the collapse of structures overturns stoves and furnaces, breaks electric wires, and ruptures gas lines.

The uprush of the atomic eloud after the explosion eauses an inrush of wind, and heat from fires augments this effect. At Hiroshima a "fire storm" resulted, with galewinds sucked inward toward the center by the continued uprush of hot air. This did

not occur at Nagasaki, but must be assumed as a danger in an atomic blast. At the very least, fires about the perimeter will tend to consolidate and cut off help from people trapped within the blast area.

Burns suffered from flames, in such cases, differ in no way from those encountered in any ordinary intense fire. If the case is not complicated by injury from nuclear radiation, the determining factors in survival and rate of recovery will not vary from those of a comparable ordinary burn.

#### Radiation Injuries

These injuries are caused by the penetrating ionizing radiations emitted by the bomb and its explosion products. Radiation sickness is a type of radiation injury in which the whole body has been exposed to a dose of radiation sufficiently high to produce a specific set of clinical symptoms ealled the "acute radiation syn-Radiation sickness should be difdrome." ferentiated from other forms of radiation injury in which only certain parts of the body are exposed, leading to skin injury (radiation burns) and other local tissue damage. Although radiation sickness has been the subject of much interest, it must be realized that only about 15 to 20 per cent of the surviving casualties of an atomic bombing would suffer chiefly from radiation sickness. The majority of these, moreover, would not require medical attention for several days following the explosion. With adequate radiological defense, injuries from residual radiation largely could be prevented and should not constitute an immediate major medical problem. Physicians who studied the clinical effects of radiation among survivors in Japan find that the severity of symptoms is related to the amount of radiation absorbed in a single dose as governed by shielding and distance.

Any living tissue can be destroyed by a sufficiently high dose of ionizing radiation. The tissues of the blood-forming system are among the most sensitive. Therefore, symptoms resulting from the cessation of formation of formed elements of the circulating blood are very prominent in radiation siekness.

The body's system of resistance to infection (particularly the reticulo-endothelial system) also is highly susceptible to radiation damage. Except for the initial nausea

and vomiting, many of the symptoms of radiation vietims result from lowered resistance to infection and the appearance of hemorrhagic manifestations.

There is no unique and unusual treatment for radiation sickness. Treatment must be directed toward combating infection by the use of antibiotics, replacement of missing blood elements by transfusion, and attempts to decrease the hemorrhagic tendency by such specific agents as may be available. Other treatment should include the use of general supportive and symptomatic care.

Early transfusions, given before blood changes have occurred, have not been shown to alter the outcome of radiation sickness. The initial supply of whole blood, which would be limited in amount, should be reserved for those patients who would need it immediately, as in cases of shock and burns. Blood transfusions, therefore, should not be given until there are clear-cut medical indications.

An individual who has received a lethal dose of radiation may be expected to display symptoms, including nausea, vomiting, fever and prostration, during the first 24 hours. Before considering such symptoms as indicative of severe radiation sickness, however, it would be necessary to search for other types of injuries or shock, or emotional disturbances that might produce similar symptoms but from which the patients might recover promptly if adequately treated.

#### Psychological Factors

Since the advent of the atomic bomb, unfortunate psychologic reactions have developed, especially in regard to the radioactivity produced by an atomic explosion. The fear reaction of military personnel who were not acquainted with the technical details concerning this aspect was appalling at the experimental explosions at Bikini and Eniwetok.

The idea has developed that any and all exposure to radioactivity will cause immediate and mysterious injury and death. This reasoning is delusive, but is also contagious. In Japan, no deaths were attributed to lingering radiation; no one has become permanently sterile; and no "freak" children have been born to parents, one or the other of whom had been affected by radiation.

The atomic bomb was developed as a blast

weapon, and is used strategically as such. The radiation effect is not considered of prime importance, but rather the destruction caused by the blast, heat, and secondary fires. In Japan there was no significant "poisoning" of the ground. The radiation lasts approximately ninety seconds, and does not extend beyond a radius of 2,000 yards. Rescue teams will be immediately able to enter a bombed area and rescue the thousands who will be unable to walk.

From only 5 to 15 per cent of the deaths in Japan were caused by radioactivity, yet the press has dwelt on this small percentage. Civil defense health services workers should concentrate their efforts on the 85 per cent who will need immediate and adequate treatment. It must be recognized by all that the casualties caused by blast and burns will be many times greater than the deaths caused by radiation. It must be recognized by all that rescue work can begin immediately, and that residual radiation from an air burst will not make the bombed area a death trap.

#### ACTH AND CORTISONE IN CANCER

Evidence gained in a study of twenty-six patients with advanced cancer indicates that treatment with ACTH and cortisone is helpful in reducing pain and other complications of the disease but does not materially alter its natural course, according to a report in the Journal of the American Medical Association (144: 1058, Nov. 25, 1950) by Drs. Samuel G Taylor III, John P. Ayer, and Roger S. Morris, Jr.

The clinical response of most patients was reduction in fever, if present, increased appetite, and improved strength and well-being. At times the effects were dramatic, and usually appeared within 48 hours after ACTH therapy and within four to six days after starting treatment with cortisone. Patients hitherto bedridden, vomiting, and requiring heavy doses of narcotics were able to become ambulatory, reduce or stop their reliance on narcotics and eat good meals.

Some of the side effects produced by ACTH and cortisone, which, according to the authors, may make "repeated or prolonged therapy ill advised," were chemical changes in the body, excess sugar in the blood, mental and personality changes, sexual and skin disturbances, development of moon-sbaped faces, and unnatural fat deposits in different parts of the body.

## CLINICAL STUDIES OF CHLOROPHYLL FRACTIONS FOR BODY DEODORIZATION

Further evidence of the efficacy of orally administered chlorophyll fractions in neutralization of body odors was reported by Drs. Royal M. Montgomery and Henry B Nachtigall of New York City. Writing in the November, 1950, issue of Postgraduale Medicine, the researchers tested three different groups of persons and found the results excellent in neutralizing underarm odor and encouraging in cases of odors caused by disease.

The cblorophyll fractions used in the study were similar to those tested by Dr. F Howard Westcott, who found that water-soluble chlorophyll A, given orally, showed definite neutralization of malodorous substances and obnoxious body odors.

The underarm odor of 25 industrial employees and 20 college atbletes was selected for study, the Fair-Wells metal osmoscope being used to measure odor intensity. Nine persons with odor resulting from various illnesses were also tested, with the olfactory sense of the physician or nurse accepted as evidence. Customary hygienic habits were continued, except that a white, unscented soap was used for washing.

After two 100 mg. tablets of chlorophyll fractions were taken in 24 hours by each of the 25 industrial workers, the average osmoscopic reading was 0.5 as compared to 2.3 before ingestion. The dose was doubled the next day, resulting in an average reading of 0.2, a 91 per cent decrease. The underarm odor of eleven workers was too faint for measurement after 1200 mg. of chlorophyllin fractions had been given in three days.

The average reading result of the 20 athletes after one hour of strcnuous exercise and before administration of colorophyllin was 3.0. One 100 mg, tablet was ingested each day for two days, resulting in a 40 per cent decrease in measurable underarm odor before exercise and a 60 per cent decrease after exercise. After increase of the dosage to 200 mg for two days, the reading before exercise was 0.15 and after exercise, 0 3.

Untreated chlorophyll and copper chlorophyll were also administered to this group. Results showed that although the copper chlorophyll was better than the untreated chlorophyll, it was much less effective than the water-soluble chlorophyll.

Although only a few cases have been observed to date in the deodorant studies on diseases, results are encouraging. A total of 9 cases was given 100 mg., three times daily, of the specially prepared chlorophyllin for one week or more. The cases included one hemiplegic with a large varicose ulcer, a woman with a large necrotic radiation ulcer on her knee, and a 74-year-old woman with hemiplegia and inoperable cancer. The odors were all decreased except in the case of the radiation ulcer.

## MAJOR CHANGES IN U. S. P. XIV Described by Revision Director

"It is important that pharmacists be kept informed of the provisions of each new revision of the U. S. Pharmacopeia," said Dr. Lloyd Miller, in addressing the Baltimore Branch of the American Pharmaceutical Association. He then outlined the highlights of the recent revisions which may be summarized as follows:

Physicians expect pharmacists in their communities to know the new requirements, and law enforcement officials look to pharmacists to be aware of the latest drug standards. A brief review of U. S. P. XIV is, therefore, in order, and for those who wish to provide a booklet to physicians outlining the new feature of the U. S. P., the Revisions Headquarters is prepared to supply copies at a nominal cost.

Of the 119 items not carried over into U. S. P. XIV, all but eight appear in N. F. IX. The eight items are: cedar leaf oil, cupric citrate and its ointment, three forms of penicillin, i.e., the calcium salt, dental cones, oil-in-wax injection, and thyroxin.

#### Additions in U. S. P. XIV

The 203 new items in U.S. P. XIV include two which appear in the First Sheet Supplement, namely, suramin sodium and its injection. New additions may be classified under the following headings: antibiotics, which constitute the most important new class of official drugs; nasal decongestants, including amphetamine, naphazoline, and phenylephedrine; various diagnostic aids, including Congo red, iodoalphionic acid, methiodal, and sodium iodomethamate. These products are all used by diagnosticians, the last three especially for visualizing the internal organs by X-rays. vitamins there are the two crystalline forms of Vitamin D2 and Vitamin D3, although mention is made of Vitamin B<sub>12</sub>, admitted

recently by supplement to U. S. P. XIII. Antimalarials include chloroquine which was developed during the war along with chlorquanide and pentaguine, the latter not having achieved very wide usage as yet. The new surgical aids include oxidized cellulose, a cotton bandage treated to make it absorbable by body tissues, and a gelatin sponge used as a hemostatic, The gelatin boot and several serums, which may also be considered surgical aids, are also grouped under this heading. Heparin and bishydroxycoumarin are listed under blood coagulation modifiers. Whereas these last named items delay clotting, antihemophilic globulin, also mentioned in this group, promotes clotting. The antihistaminics are represented by diphenlydramine and tripelennamine.

#### New Ointment Bases

Probably of greatest importance to the pharmacist is an innovation with respect to ointment bases in U.S.P. XIV. While wool fat is still included as a U. S. P. item, none of the U.S.P. ointment bases call for it. The new synthetic water-soluble waxes, which have the official designation of polyethylene glycol 400 and 4000, have been added. These are condensation polymers of ethylene oxide and water which have respectively an average molecular weight of 400 and 4000. The former is a clear, colorless liquid, while the latter is a solid, wax-like product. The two may be blended to give any consistency desired in an ointment base. The result is a completely bland base which is very stable and a boon to the patient because it can be readily removed by washing with water.

The U. S. P. formula for hydrophilic ointment has been changed by substituting poly-

(Continued on Page 120)

#### W. H. O. REPORTS PROGRESS FOR 1950

The World Health Organization, now entering its third year as a permanent agency of the United Nations, has published a complete report of the progress made in world-wide health problems during 1950. Among the more important actions recorded were the following:

- —A strong warning was issued by WHO experts against the abuse of various new synthetic drugs capable of producing addiction. Grave concern was also expressed over the excessive increase in the consumption of heroin in several countries.
- —WHO issued a warning against unrestricted distribution and indiscriminate use of streptomycin in the treatment of tuberculosis.
- -Two Nobel prize winners, Dr. E. Chain (penicillin) and Dr. Selman A. Waksman (streptomycin), participated in drafting a WHO program designed to stimulate research in antibiotics, to improve production and distribution of these important drugs, and to foster exchange of scientific information and equipment.
- —Iran became the first country to abolish all customs duties on insecticides and on a number of drugs needed to combat malaria and venereal diseases. This was announced to the Regional Committee for the Eastern Mediterranean which met in September in Istanhul to draft health programs for this area in 1951 and 1952.
- —A 20 per cent increase in their countries' contributions to the WHO budget was unanimously voted by delegations to the Regional Committee for Southeast Asia at their third session, held in Kandy, Ceylon. The need for national or regional production of essential drugs was stressed by all delegations.
- -Sixteen new biological standards were established by WHO, among them on international standard for ACTH.
- —The first large-scale and scientifically controlled campaign for treating trachoma with the new antibiotics chloromycetin, terramycin, and aureomycin, started in several Eastern Mediterranean countries sheltering Arab refugees.
- -Treatment and prevention of alcoholism as a public health problem was the theme of a meeting of WHO experts brought together in connection with the mental health program.

- —Sulpbetrone, one of the latest antileprosy drugs; was made available to Ethiopia in large amounts for the treatment of lepers.
- -The discovery of a new antibiotic, funigillin, was announced recently before the first Medical Symposium on Tropical Diseases in the Eastern Mediterrancan, East, which was attended by approximately 500 physicians and public health workers from the region. Dr. Hamilton H. Anderson, Dean of the Medical Faculty of the American University of Beirut, informed the audience that the new drug, still in the experimental stage, showed great potential value for the treatment of amebic dysentery, a disease widely prevalent in the Eastern Mediterrancan Region.
- —The entire canine population of Juarez, Mexico, a town on the border between the United States and Mexico, was recently vaccinated in a week-long campaign against rabies. During the vaccination week 4000 dogs were registered and vaccinated, while all stray dogs were killed. The project will serve as a model for similar campaigns in other towns along the border.
- —A large-scale campaign against trachoma, the first of its kind, began early in December in several Eastern Mediterranean countries caring for Arab refugees from Palestine. The project is under WHO direction and is making use of three new antibiotics, namely obloromycetin, terramycin, and aureomycin. The program is expected to provide a scientifically controlled comparison of the effectiveness of these three antibiotics in treating trachoma. In certain countries of the East and South Mediterranean regions as many as 80 per cent of the people have trachoma.
- —On December 2, the Pan American Sanitary Bureau celebrated its 48th anniversary. The PASB, with all 21 American Republics as members, was the first international organization in the field of public health. Its programs include nursing, maternal and child health, health education, venereal disease and tuberculosis control, veterinary public health, hospital administration, fellowships, environmental sanitation, nutrition, epidemiological reporting, and the issuance of technical publications.

Vol. XII, No. 2

## NATIONAL DEFENSE

AND

## SECURITY

EXECUTIVE OFFICE OF THE PRESIDENT NATIONAL SECURITY RESOURCES BOARD WASHINGTON 25, D. C.

January 31, 1951

Mr. Henry H. Gregg, President American Pharmaceutical Association Washington 7, D. C.

Dear Mr Gregg:

Your letter of January 1 to the President has been referred to this office Thank you for your offer of assistance during the present national emergency

The American Pharmaceutical Association has been most helpful to the National Security Resources Board, particularly in the development of the pamphlet "Health Services and Special Weapons Defense"

We will appreciate the continued assistance of your Association

Sincerely,

W STUART SYMINGTON

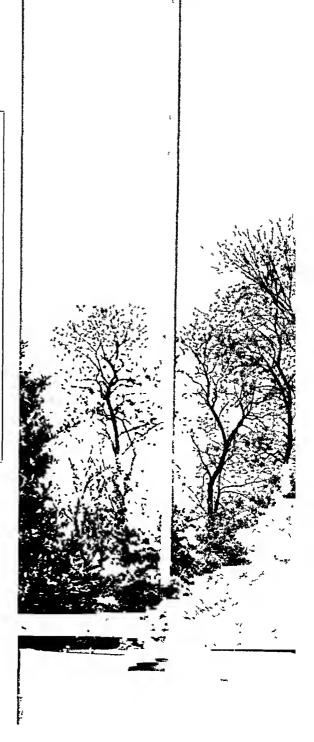
The war memorial on the grounds of the AMERICAN PHARMACEUTICAL ASSOCIATION, dedicated in 1948, commemorates the past services of "all pharmacists who served in the wars of our country."

Once more it becomes necessary to prepare for the national defense and again pharmacists will serve in civil or military capacities.

will serve in civil or military capacities.

The AMERICAN PHARMACEUTICAL ASSOCIATION offers this section of its JOURNAL to keep pharmacists abreast of national defense and security developments.

February, 1951



#### UNIVERSAL MILITARY SERVICE AND TRAINING

A manpower debate, a corollary of the Great Debate on foreign policy, is now occupying a great part of Congress and the rest of the country, as we prepare to reverse our historic stand on universal military service and training.

Consideration of such a reversal has been made necessary by the realization that we must negotiate in world affairs from positions of strength. If possible, we hope to forestall an attack by warning that we are strong enough to withstand it.

According to our military leaders, such a

position must include an armed service of 3,500,000 men backed up by a trained reserve. At present, Selective Service is not organized to sustain the needed manpower in a long-range plan. As an alternative, the Defense Department has advocated a system of universal military service and training for all youths.

The first act of the new Senate was in the proposal of a bill, S.1, that would make military service and training compulsory. A similar bill, HR 1752, was taken up coinci-

dentally in the House.

#### PROVISIONS OF THE BILL

Briefly, the bill proposes to lower the draft age from 19 to 18 years and to extend the term of duty to twenty-seven months. Every young man of 18 would go through four months of basic training. After this period, he would be transferred to active duty for twenty-three months, and then he would enroll in a Reserve component for eight years.

#### Student Deferment

Mindful of the need to keep a constant stream of scientifically trained men, and mindful of the fact that we must wage the struggle for men's minds, if we are to keep freedom alive, the bill suggests that 75,000 students be deferred from active duty, after their four months' basic training, to attend college. Upon graduation, they would be liable to a recall to active duty for twenty-three months. They would also be required to remain in a Reserve component for eight years.

A civilian commission, set up to advise the President on such matters, would decide on the standards and the type of student to be chosen to fill the 75,000 quota. The Defense Department is clear and forceful in its recommendation that civilians, not the military, administer this program.

An ROTC program would continue in effect, granting deferments, until the end of

their college career, to all those joining the program, providing they agree to active duty service for two years after graduation and to remain in the Reserve for eight years. This program would remain in the hands of the military.

The Defense Department has also suggested that a national scholarship program be set up and administered by the civilian commission, so that no one need be deprived of making his maximum contribution because of financial restrictions. In testifying for the bill, Assistant Secretary Anna M. Rosenberg advocated longer periods of deferment for those who would have to work their way through college.

In a letter to Congress, Secretary of Defense Marshall stated that a draft of 18-year-olds would not disrupt the normal procedures of young men's lives more than was necessary to provide the strength to insure world peace.

"Young men of 18," Gen. Marshall later told the Senate Preparedness Subcommittee, "would learn much to make them sturdier and better citizens. At the same time they would make the major contribution to our national security and greatly improve their own chances of survival."

Maj. Gen. Lewis B. Hershey, Director of Selective Service, suggested to the House Armed Services Committee that those inductees who did not fall into a student deferment class, be permitted to collist in the service of their choice after their four months of basic training, providing they were qualified and needed. He further stipulated, however, that their term of enlistment would have to be for four years instead of the twenty-seven months for which they would be liable as inductees.

#### General Eisenhower Testifies

Perhaps the testimony that earried the greatest weight with Congress was that of General of the Army Dwight D. Eisenhower who, speaking both as a university president and an experienced army man, testified before the Senate committee after his recent visit in Europe.

As President of Columbia University, Gen. Eisenhower stated, he made a survey for his own information of the manpower problems involved in building up the armed forces. He decided that the best solution was to draft all men when they reached 18, or finished high sehool, for training and serv-

ice of twenty-five months. However, he added, he would go along with the Pentagon's decision of twenty-seven months, since they had the manpower experts.

Gen. Eisenhower said that in his experience with young men, he had been impressed with their great concern over the uncertainty of their future. When Columbia students asked him what they should do, Gen. Eisenhower said he told them, "Pursue your schooling until Congress tells you what to do, and then do it with a grin on your face."

In aecord with the provisions of the proposed UMST bill, Gen. Eisenhower expressed the opinion that seientific, medical, and similar students should be deferred from military service after basic training, for the good of the country, and not for their own advancement, and should complete their military service after college.

Gen. Eisenhower also believes it would be more expedient to register all young men at 17 in order to give military planners an idea of the resources that would be available when these men reached the age of 18.

#### THE EDUCATORS' CASE

Educators are divided on the question of lowering the draft age. Probably the bestknown exponent in education for the drafting of all 18-vear-olds is President James B. Conant of Harvard University, whose position on this question was discussed in last month's Journal. Dr. Conant has since added that he favors deferring all students This would tend to lessen now in college. the shock that the colleges must absorb, if · 18-year-olds are drafted, until the first draft group could return to college after their service. Needless to say, it would also keep open the pipeline of students who are trained, or partly trained, to take jobs in essential work.

The American Council on Education has approved UMST in principle, but urges that 75,000 be considered a minimum deferment figure, and that all students now making satisfactory progress in college be deferred until the completion of their studies. The Council also recommends that the provisions

for returning men to college after basic training should be a continuing one rather than for only three years as presently in the bill. The Council further feels that the civilian advisory commission, provided for in the bill, should express the views of the public regarding the bill's provisions, effects, and desirable duration.

One of the sharpest attacks on the drafting of 18-year-olds was made by Dr. Ralph W. McDonald, executive secretary of the National Education Association's department of higher education. Dr. McDonald estimates that lowering the draft age would reduce college enrollment of male students by 25 to 50 per cent. He also questioned Dr. Conant's view that boys drafted at 18 would enter college after two years of military duty. He believes that a young man is more likely to return to college if he has already eompleted a year or two before entering the service.

#### THE POSITION OF THE A.PH. A.

The American Council on Education, of the American Pharmaceutical Association is a member, goes along with the general provisions of the UMST bill. In testifying before the Senatc Armed Services Subcommittee on Preparedness, Dr. Robert P. Fischelis, secretary of the Association, urged that a student deferment program be adopted to take into consideration an adequate allocation of students to attend pharmacy schools. Dr. Fischelis stressed the importance of continuing the stream of trained pharmacists to meet civilian health needs and military requirements. He also pointed to the job pharmacists are expected to do in the civilian defense setup. (A more detailed report of his testimony is

included on page 101 of This Journal.)

In its efforts to explore every possible avenue of sclection for scrvice before drafting 18-year-olds, Congress has sent out fcelers on the possibility of raising the draft age to 30, of including married, childless nonveteraus. At present, the only measure along these lines that is sure to go into effect is the lowering of the mental requirements for induction.

UMST seems to hold the answer to our military requirements. The framework of our formal education pattern may have to be changed, but this ean be done democratically and may even help to broaden the base of our democracy.

#### DEFENSE HEALTH NEEDS SURVEYED

The Federal Security Administration, which embodies the Public Health Service, has been designated as official claimant agency representing civilian interest before the National Production Authority.

In addressing a meeting of the Drug, Chemical and Allied Trades Scction of the New York Board of Trade on January 26, Osear R. Ewing, FSA Administrator, stated that "obviously the demand of the military must be met, but they eannot be considered to the exclusion of the basic health demand needs and the over-all strength of the eivilian eeonomy."

Mr. Ewing warned that allocation of material will make serious inroads into available health supplies. In this connection, FSA will define what proportion of vital material will be necessary to retain the health of the country.

"The important thing," Mr. Ewing deelared, "is a working partnership between government and industry in determining the structure and extent of these controls." Mr. Ewing added that he planned "to meet with professional groups, such as the American Medical Association, the American Dental Association, the American Pharmaceutical Association, and others. Our purpose is to seeure all possible advice and help and to make sure that all necessary steps will be taken with the full knowledge and understanding of those concerned."

#### Blood Plasma Substitute

In a recent announcement by Dr. M. C. Winternitz, chairman of the Division of Medical Sciences, the National Research Council disclosed that the Army is making battle emergency use of dextran in Korea, and behind-the-lines use of a second gelatin-based blood plasma substitute.

Dextran was developed in Sweden about eight years ago and is produced from sucrose, beet juice, and molasses. According to Dr. Gumar Thorsen of Stockholm, dextran is routinely used instead of plasma in his country's largest hospitals. It is even less likely to result in bad reactions than blood plasma itself, and experience has shown that it remains stable at both high and low temperatures.

Dr. Winternitz stressed that despite the promising developments of blood substitutes, the national blood-eolleeting program must not be let down. "Whole blood is absolutely essential, both in eivilian and military medicine," Dr. Winternitz said.

## A. PH. A. SECRETARY SUPPLIES PHARMACEUTICAL MANPOWER DATA TO SENATE COMMITTEE

In considering proposed amendments to the Selective Service Act of 1948, the Senate Preparedness Subcommittee called upon the representatives of numerous professional and educational organizations to offer advice and counsel in regard to efficient use of manpower.

Among the professional organizations whose representatives appeared before the Committee were the American Medical Association, the American Dental Association, the National Society of Professional Engineers, and the American Pharmaceutical Association,

Following are pertinent excerpts taken from the testimony of Secretary Robert P. Fischelis, before the Committee.

"Pharmacal manpower, pharmaceutical service, and the products of the pharmaceutical industries are all essential to the maintenance of the health of the armed forces as well as civilians.

"Pharmaceutical service comprises the production, warehousing, and distribution of drugs and medicines; the compounding and dispensing of prescriptions of medical praetitioners in retail pharmaeies, hospitals and institutions; supplying information to the other health professions and to the public on the composition, dosage form, preservation, and administration of drugs and medicines; training competent personnel for the diversified functions of the practice of pharmacy; devising and maintaining standards of identity, purity, strength, and safety for drugs and medicines; and regulating the practice of pharmacy through a system of state lieensure of pharmaeists and the establishments in which pharmaey is practiced.

"The most recent eensus figures indicate that there are approximately 54,000 retail drug establishments in the United States. In addition, there are about 2500 pharmaeies established in hospitals with registered pharmacists in charge. These combined pharmacies dispensed nearly 400,000,000 prescriptions last year.

"There are approximately 1100 manufac-

turers of drugs and medicines and about 1600 wholesale drug and warehousing establishments.

"To man these retail, hospital, wholesale and manufacturing establishments with an adequate number of professionally trained pharmacists requires more than 100,000 licensed pharmacists.

"Aetually, it is estimated that slightly more than 101,000 pharmacists were engaged in actual practice on January 1, 1950. Of these, about 92,000 were practicing their profession in retail pharmacies, about 2600 in hospital pharmacies, about 2500 in manufacturing and wholesale establishments, and about 2500 more as representatives of manufacturing and wholesale establishments in contact work with the medical and pharmacal professions. About 700 were engaged in teaching and government service, and the balance were engaged in a variety of capacities.

"Close to 4 per cent of the total number of registered pharmacists are women.

"One of the findings of the Pharmaceutical Survey was that the replacement factor for lieensed pharmacists, based upon an actuarial study of the aggregate withdrawal rate of pharmacists through death, incapacity, or retirement, is about 3 per cent.

"This would mean that the minimum replacement figure for the profession and industry would be about 3000 annually."

"On the basis of the Army Surgeon General's estimated need of three pharmaey officers in the Medical Service Corps for every 1000 men, the armed forces would require 3500 graduate pharmaeists for an army of 3.5 million, and this number would be increased considerably if pharmaeists were utilized to their full capacity and training in releasing medical officers from administrative duties.

"Pharmacists who are graduates of accredited eolleges of pharmacy are eligible to commissioned rank in the Medical Service Corps of the Army and Navy. They are assigned eliefly to the Pharmacy, Supply,

and Administration Section of that eorps. The Surgeon General of the Army has stated that 'as ultimately developed, this Section will consist primarily of pharmaeists who are graduates of accredited colleges giving the Bachelor of Seienee degree.'

"The duties of pharmacists in the Medical Service Corps of the Army and Navy and other branches of the Service have been outlined by the Surgeons General and by Dr. Riehard L. Meiling, chairman of the Armed Forces Medical Policy Council.

"In eivil defense, pharmaeies will play an important role as sources of health information and supplies. Community health service advisory committees to be set up by eivil defense ageneies will include pharmaeists. First aid station staffs as set up under the Federal plan include a minimum of two pharmaeists per station.

"The Federal Civil Defense Administration in its recently issued manual entitled 'Health Scrviecs and Special Wcapons Defense' refers to pharmacists and pharmaecutical services specifically. [These references were printed in full in the January issue of This Journal.]

"I have been asked to state in behalf of the American Association of Colleges of Pharmacy that a eareful survey of student enrollment and facilities in the 75 selools of pharmaey is under way and that a statement in behalf of these institutions will be transmitted to your Committee promptly. general it is the eonsidered view of the educators in this field that the requirements for pharmacal manpower necessitate continuance of students now enrolled to the completion of their courses and graduation. is their further view that in order to supply the minimum number of replacements of pharmacists required by the profession and drug industry annually in aecordanee with the actuarial replacement figure of 3.1 per eent, a minimum of four thousand students should be admitted to the freshman classes in colleges of pharmacy in 1951.

"These institutions and the profession of pharmaey in general are of course ready to abide by such decisions as are made in behalf of higher education in general with respect to the current emergency. However, it is felt that if and when decisions are made as to the allocation of students under the proviso in Sec. 6 (d) (1) of the Amendments to S.I, the officials or agencies of the government designated by the President to make the selection of students and to determine their number should have the advice of appropriate committees representing the several professions and sciences engaged in the teaching and training of these students.

"Speaking in behalf of the Commission on Professional Manpower for Pharmaey, I should like to point out that the figure of 75.000 mentioned in Section 6 (d) (1) of the Amendments to S.1 should not be considered maximum. We believe it to be much more realistic for the Congress to fix this number. if it is deemed necessary to be specific, after a competent group representing the professions and the sciences has given consideration to all of the military and eivilian reauirements for the services of the professions and the seiences and made recommendations as to minimum requirements for personnel to earry out all essential functions.

"It is of the utmost importance to the health and welfare of the nation that there be an uninterrupted flow of drugs and medieincs from the sources of production to the bedside of the patient. It is likewise of first importance that the researches which have resulted in the remarkable development of drugs in recent years should not be eurtailed. It takes years of patient effort on the part of highly trained scientists to synthesize modern drugs and frequently it takes equally long or longer to transform a laboratory diseovery into a dosage form of drug which can be administered safely and which can be produced at a cost within the reach of the ordinary patient. Such activity occupies the time of many scientists in the research and development laboratories and the professional attention of pharmaeists in the manufacturing plants and at the dispensing counter in the prescription departments of the pharmacies of the nation.

"The professional manpower necessary for the constant supervision of the many stages in making drugs ultimately available to the sick must be provided if the health of the nation is to be maintained."

## BAL Saves Lives

Health Officer Urges Pharmacists to Stock Specific Antidote for Arsenic, Mercury and other Heavy Metal Poisonings.

Pharmacists of the old school will recall the days when it was considered a part of their public emergency service to be prepared to mix and supply at a moment's notice the official "Arsenic Antidote" (Ferric Hydroxide and Magnesium Oxide).

Today, arsenic poisoning is treated by more effective methods. This is the result of the World War II discovery of the effectiveness of BAL in treating poisoning from the dreaded

Lewisite.

"BAL," coined from the term "British Anti-Lewisite," is, at present, the only known specific antidote for poisoning by the heavy metals. Developed during World War II to counteract the effects of the poison gas Lewisite, BAL was kept under a blanket of secrecy until cessation of hostilities, when it was released for civilian use, together with reports of the research performed and experiences gained. Since that time, numerous reports in the literature show that BAL may be used with a degree of certainty and safety.

Dr. James H. Lade, of the State of New York Department of Health, caused a supply of BAL to be stocked in 128 laboratory supply stations throughout the state (exclusive of New York City) for free distribution to all physicians in case of arsenic and mercury poisoning. Because there are no geographic limits to suicide attempts and because of the serious and sometimes fatal reactions to arsenic, mercury, and gold, Dr. Lade has urged that every hospital and retail pharmacy have at least a ten-vial package on hand at all times, with complete directions as to its indications and recommended dosages. Early administration in comparatively large doses enhances the efficacy of BAL, and even one ten-vial package will suffice to save a life.

The manufacturers at times have received frantic telephone calls from all over the country, asking that a supply of BAL be flown immediately to the bedside of a patient who has swallowed bichloride of mercury, or to a child who has eaten rat poison containing arsenic. It has not always arrived in time.

A supply of BAL, adequate to meet at least emergency needs, should be on the shelf of every retail and hospital pharmacy, thus making it possible for the pharmacist to be of even greater service to his community. Dr. Lade, in a communication addressed to the American Pharmaceutical Association, said, "Though it is but one detail in a complicated business, stocking [of BAL] by most pharmacists should save many lives per year, for physicians would not normally turn to a health department for a remedy not connected with its usual field of activity."

Experiments indicate that BAL may be found to have further more or less important uses in the field of therapeutics.

First used as a topical application to counteract possible exposure to Lewisite, BAL was later found useful in combating the systemic disturbances caused by absorption of arsenical compounds through the skin. Further investigation revealed BAL to be successful in treatment of poisoning caused by arsenotherapy and in cases of poisoning caused by other metals, especially mercury and gold. BAL was restricted to military use until the end of the war, when it became generally available.

The chemical name of BAL is 2,3-dimercaptopropanol. New and Nonofficial Remedies, 1950, suggests naming it "Dimercaprol" as more suggestive than BAL of its chemical origin. The U. S. Pharmacopeia

lists BAL as "Dimercaprol" and "Dimercaprol Injection." BAL, however, remains the popular appellation, and it is marketed by that name.\*

The structural formula of BAL is:

It has a molecular weight of 124.2 and a specific gravity of 1.238 to 1.240. It is soluble in water to the extent of about 7% but its aqueous solutions are unstable. Physically, BAL is an oily liquid with a skunklike odor. It may be colorless or almost colorless.

The antidotal action of BAL lies in its ability to unite with arsenic and certain other metals to form a relatively stable cyclic compound and thus compete successfully with the sulfhydryl groups of tissue proteins for certain metals. BAL unites with the metals before they enter into combination with the tissues, or it may wrest the metals away from the tissues. A BALmetal complex is formed, which is excreted.

#### Pharmacology

Administration of BAL has provided striking results in many cases of heavy metal poisoning, but transient, undesirable side reactions may occur, especially when large doses are required. In one series of patients, intramuscular injection of BAL at a single dose level of 2.5 mg. per kilogram of body weight caused mild toxic signs and symptoms in 1 per cent of cases. At a level of 4 mg. per kilogram, reactions were noted in about 15 per cent of cases, and at a level of 5 mg., 50 to 60 per cent had reactions. Localized pain at site of injection was present, but not more often than that seen after the similar administration of other therapeutic agents.

The usual toxic manifestations were nausea, vomiting, headache, burning sensations of the mouth and eyes, lacrimation, profuse salivation, rhinorrhea, muscular aches, tingling of the extremities, sweating of the forehead and hands, pain in the teeth, a sense of constriction in the chest, anxiety, and general agitation. Transient elevation of blood pressure was common.

Onset of symptoms was from 10 to 20 minutes after injection. The maximum was

reached in 20 to 30 minutes, and disappeared within 50 to 90 minutes.

It has been observed that BAL in single doses of 8 mg, per kilogram of body weight almost invariably produced marked symptomatology. It was also found that doses of 5 mg, per kilogram of body weight could be repeated every 3 hours for 24 hours without significant cumulative effects.

A case has been reported in which a child received two overdoses of BAL of 25 mg. per kilogram each. Anorexia, vomiting, and restlessness developed within 30 minutes after the first overdose, but all symptoms subsided in an hour. Ten minutes after the second overdose, which was given 3 hours later, examination revealed cutaneous flushing, mild hyperpyrexia, tachycardia, hypertension, a generalized convulsion lasting for 3 minutes, and a coma and stupor lasting for an hour. The child appeared to be normal after the coma, and recovery was uneventful

Localized abscesses occasionally occur at the site of injection, most commonly seen in cases of arsenical dermatitis in which the needles have passed through infected tissue.

Topical application can cause varying degrees of localized reactions, ranging from mild erythema to severe whealing and capillary damage.

Epinephrine has been used successfully to alleviate the undesirable side effects of BAL: 0.6 of 1 cc. of 1:1000 epinephrine hydrochloride solution has given rapid and complete relief. Oral or parenteral administration of 25 mg. of ephedrine sulfate half an hour before the administration of BAL has prevented the onset of symptoms.

#### Clinical Experiences

#### Arsenic Poisoning

BAL has been used extensively in the treatment of arsenical dermatitis with good results. In severe cases, edema, fever, and pruritis disappear or greatly decrease within 24 hours after administration, and complete recovery may occur within 2 weeks. Some patients may have only a partial response or may relapse and require another course of BAL, whereas others may show no improvement at all. Intramuscular injection of BAL is the treatment of choice.

BAL was administered in a series of cases of arsenical encephalitis, usually a fatal

<sup>\*</sup> BAL is manufactured in the United States by Hynson, Westcott and Dunning, Baltimore, Md.

complication of arsenotherapy; only 20 per cent of the patients died. In half of these, treatment was not instituted until from 9 to 72 hours after the onset of encephalitis.

BAL has also been of value in treating certain blood dyserasias associated with arsenotherapy, especially agranulocytosis. A favorable result was obtained in one ease of thrombocytopenic hemorrhages associated with neoarsphenamine therapy.

In four eases in which massive doses of mapharsen had erroneously been given, three of the patients made uneventful recoveries after administration of BAL. The fourth patient, who had received 1200 mg. of mapharsen, died after inadequate treatment with BAL despite an initially favorable response.

BAL was used in treatment of forty-two infants and children who had caten substances containing arsenic, twenty-two of whom had taken potentially lethal doses. No deaths occurred in this series, and in all cases signs and symptoms of arsenic poisoning disappeared within 12 hours after initiation of BAL therapy.

#### Mereury Poisoning

BAL has been used extensively in the treatment of acute poisoning after the ingestion of mercury biehloride. In one series of forty-two eases in which BAL was administered, only two patients dicd. These two patients were in a group of five eases in which treatment with BAL was not started until 6 to 42 hours after the mercury had been taken.

The importance of administering BAL as early as possible is well illustrated in this series of cases. None of the thirty-seven patients who received BAL within four hours after ingestion of the mercury died.

BAL was also used with success in a case of acrodynia, in which twelve doses of calomel and rhubarb had been administered a number of weeks before the diagnosis had been established. The urine revealed a concentration of mercury of 100 micrograms per 100 cc. before initiation of BAL therapy. Eight days after the last dose of BAL, the urine was free of mercury and all signs of acrodynia had disappeared.

#### Gold Poisoning

Gold is used extensively in treatment of rheumatoid arthritis. It is a potentially toxic agent, capable of causing dermatitis, pruritus, stomatitis, agranulocytosis, thrombocytopenia, and other disorders.

BAL has been used, with good results, in several clinies in treatment of these disorders. In five cases of gold dermatitis, there was prompt subsidence of pruritus in four. The rash disappeared within a month. No change occurred in the fifth ease. In all cases, the excretion of urinary gold was increased, concurrent with the administration of BAL.

In another series of five eases of gold dermatitis of short duration, BAL caused prompt recovery, again showing that the early administration of BAL makes it more effective. BAL has been shown to be of marked benefit in a ease of severe stomatitis and in a ease of dermatitis associated with stomatitis.

BAL was also found effective in two cases in which gold therapy had eaused blood dyscrasias. One patient, who had thromboeytopenia, bleeding gums, and had become comatose from a possible subarachnoid hemorrhage, responded to BAL within several days; concurrently with administration of BAL, the number of platelets increased from 15,000 to 120,000. In the other ease, in which agranulocytosis was present, the granulocytes increased from zero to 17 per cent within 72 hours after the initiation of BAL; by the seventh day they had increased to 45 per cent.

#### Other Metal Poisoning

Further experimental and clinical studies are necessary before the efficacy of BAL in other metal poisonings can be evaluated. Experimental studies suggest that BAL actually enhances the toxicity of certain metals. Therefore, BAL should not be used indiscriminately in the treatment of metal poisonings for which it has not been found to be of specific value.

#### Directions for Use

The commercial preparation of BAL contains 10 per cent BAL and 20 per cent benzyl benzoate in peanut oil. It is suitable for intramuscular injection only. Each ampule contains 4.5 cc. of the BAL solution,

which is in excess of that required for a single dose.

Sufficient clinical experience in the use of BAL has been accumulated to permit recommendations concerning dosage schedules. Administration is by intramuscular injection only.

Severe arsenic reactions. Each injection is to consist of 3 mg. of BAL per kilogram of body weight.

First day
Second day
Third day
Following ten days, or until
recovery

6 injections per day, at the
—rate of one injection every
4 hours.
—4 injections.
—2 injections per day.

Mild arsenic reactions. Each injection is to contain 2.5 mg, per kilogram.

First day
Seeond day
Third day
Following ten
days, or until
Third day
Third

Mercury poisoning. Because of the rapid toxic action of mercury and because the mercury will neutralize some of the BAL, the initial dose should be 5 mg. of BAL per kilogram of body weight, to be followed in one to two hours by a dose of 2.5 mg. per kilogram. After two to four hours, a second dose of 2.5 mg. should be administered, and in severe cases a third dose of 2.5 mg. per kilogram should be given within the first 12 hours. On the second day, two doses of 2.5 mg. per kilogram should be given and on the third day, one dose of 2.5 mg. per kilogram.

Gold poisoning. The same dosage schedule recommended in treatment of arsenic poisoning, based on administration of 2.5 mg. of BAL per kilogram of body weight, should be followed.

In eonelusion, it can be seen that BAL, like any other life-saving drug, is valuable only if it is available. Early administration of BAL may be the all-important factor between life or death.

#### AVAILABILITY OF CORTONE

In answer to the many inquiries from pharmacists on the availability of Cortone, Merck & Co, Inc, recently issued a statement explaining the current shortage and defining its plans to meet the demand for the tablets.

Merck is now distributing available supplies throughout the country on the basis of population.

Production of the oral form is gaining momentum and it is expected that the ratio of supply between the parenteral and oral forms will soon be closely in balance. In the meantime, Merck has told physicians that the two forms may be used interchangeably at any time during treatment without disturbing the patient's clinical response.

The manufacture of Cortone requires more than thirty, time-consuming, individual chemical steps, and the supply of the principal law materials for its production is definitely limited. To meet the rapidly increasing demand for the drug, Merck announced, in January, the construction of a new unit at its Cherokee plant near Danville, Pa., for the manufacture of the drug. When this unit is completed in late 1952, the company expects to more than double its present output. Production of Cortone, in the meantime, will continue in the Rahway, N. J., plant.

#### HEALTH INFORMATION FOUNDA-TION REPORTS ON PROGRESS

The Health Information Foundation, which was established early in 1950 to collect facts about existing licalth facilities and to distribute information based on analysis of these facts, has released a year's end report on eight specific projects.

The projects, all undertaken since the Foundation's organization, include: a study of a multi-test community clinic in Richmond, Va.; a test survey to determine a pattern for appraising community health facilities; a study on the incidence of catastrophic illness through a \$7,500 grant to the University of Pcnnsylvania; a study on the financing of hospital care through the American Hospital Association; a study on payment for medical and other health care through such groups as the Blue Cross, Blue Shield, and private insurance plans; the development of a library covering medical facilities and surveys; development of contacts through communities that are endeavoring themselves to develop progress in health services; and establishing communications with health agencies in national, state, and local levels.

The Foundation distributes its information by means of a bulletin, Progress in Health Services.

## SUBSTITUTES FOR OPIUM APPROVED BY NRC

Because U. S. scientists have developed a number of morphine substitutes in recent years, the Nation can, if necessary, become independent of foreign sources of opium and its derivatives, such as morphine and codeine, hitherto indispensable to the practice of medicine, the National Research Council recently announced. Thus, a shut-off of opium imports, formerly a serious concern of defense planners, is no longer a threat to military and civilian health in the United States.

Stockpiles of the natural drugs are still essential, the Council stressed, since the new synthetics are not yet made in sufficient quantity and are largely unfamiliar to most physicians. Some months would be required to expand production of the substitutes and to bring them into general use.

The Chairman of the Committee on Drug Addiction and Narcotics, Dr. Isaac Starr of the University of Pennsylvania, summarized the Committee's view as follows:

"It is now definitely known that synthetic compounds—especially methadone and its derivatives, manufactured from readily available domestic chemicals—can do everything that morphine can do in the relief of pain and in other medical usages of morphine. They can be produced cheaply and in sufficient quantity to meet all medical needs. Therefore, if war should come, this country would not have to depend on the importation of opium for medical purposes."

The new pain-relieving drugs in the order of their historical development are Demerol, methadone, levo-isomethadone and Dromoran, the last of which represents a partial synthesis of morphine itself. Pioneer work on all of these was done by German scientists. Demerol was discovered twenty-odd years ago and, although only a mild pain reliever, has been used extensively throughout the world. Methadone was discovered during World War II by the Germans. It has been the subject of vast experimentation in the United States and is undoubtedly the equal of morphine.

Levo-isomethadone was developed by chemical ingenuity in this country and, in the experiments conducted to date, gives promise of being the most satisfactory of the new agents. It is equal to morphine in pain-relieving power and is less likely to produce unpleasant side effects. Dromoran, the newest member of this potential morphine-replacing team, is more effective and longer acting than morphine itself. It is especially important because other drugs comparable to the morphine derivatives, such as eodeine, can be made from it.

It is pointed out that these synthetic drugs are narcotics, and as such fall under the provisions of the Harrison Anti-Narcotic Act.

#### CENTENNIAL OF PROF. PAUL G. UNNA

The 8th of September, 1950, marked the centerary of the birth of the late Professor Paul G. Unna, M.D., of Hamburg, Germany. Popularly known as the discoverer of "Unna's Paste" and "Ichthyol," which are still in wide use today in treatment of dermatoses, Professor Unna was actually a pioneer in dermatology.

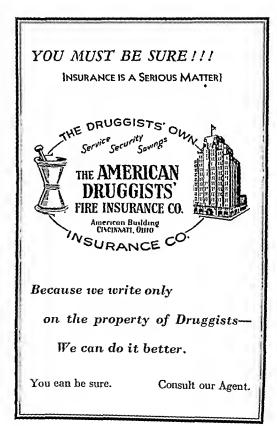


Paul G. Unna, M.D.

With the aid of the microscope and introduction of dyes into histologic investigation, he established the study of dermatology on an anatomic and pathologic basis. He was the first to explain the effects of empirical use of agents on the metabolism of cellular tissue. One of his earliest, and most important, discoveries was that relating to the effect of reducing agents upon the shin.

Professor Unna considered close collaboration with practitioners of pharmacy to be indispensable if his scientific research was to yield practical results.

Dr. Eugen Unna, son of the late illustrious dermatologist, is administrative head of the German Pharmaceutical Society.



#### ARMOUR CONFERENCE ON ACTH

At the invitation of Armour and Co. Laboratories, more than 300 scientists gathered in Chicago on December 8 and 9 to discuss recent developments in further uses of ACTH. This was the second such conference sponsored by Armour and Co., the first being held about a year ago.

The program of 95 papers indicated that two main lines of investigation are being carried out with respect to ACTH. Emphasis was on determination of diseases and tissue injuries which will respond to ACTH, as well as the equally important consideration of the fundamental problem of the function of the human adrenal glands.

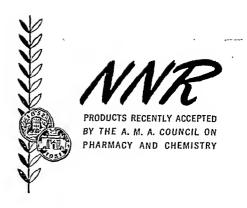
It was pointed out that ACTH acts as an adrenal cortical stimulant and that it is this stimulation, not the drug itself, which causes the reversal of the disease processes. For this reason, exact dosage recommendations are flexible and depend upon the individual reaction to the stimulation. In contrast, the administration of cortisone serves to replenish the normal secretion of 17-hydroxycorticosterone-like storoids.

Intravenous administration of ACTH gives the most satisfactory results in clinical tests, according to Edgar S. Gordon, of the University of Wisconsin. The method chosen was the "constant drip" technique, by which the hormone in a 5% glucose solution was dripped slowly into a vein at the elbow. Dr. Gordon reported that this method insures a prolonged "stimulation pressure" on the adrenals and that the total effect was much greater than with the brief stimulation given by hypoderinic injections.

A single injection of ACTH counteracts the poison of the black widow spider and the copperhead snake, according to Harley E. Cluxton, director of medical research for Armour. A series of tests on laboratory animals is being carried on by Armour laboratories using snake venom and ACTH under varying conditions of time and dosage to try to establish a pattern of their action, Dr. Cluxton stated.

ACTH has been successfully used in the treatment of severe burns and as an adjuvant in skin grafting operations. Two cases of badly burned children who were running high temperatures and were apparently resisting normal recovery and healing were cited by Drs. F. H. Adams, Eldon Berglund, Samuel Balkin, and Tague Chisholm, all of the University of Minnesota school of medicine. The doctors reported that both cases responded quickly to ACTH therapy and that subsequent skin grafts were successful.

A research team from Duke University described the case of a nine-year-old boy who was burned more than four years ago and who had undergone 42 unsuccessful skin grafting operations. He was given a two-day preliminary build-up with ACTH and the skin grafting tried again. This time 80 per cent of the grafts survived; subsequent operations with ACTH injections prior to and also for a period after the operations were similarly successful.



Council descriptions of new drug products only are published regularly in This Journal as they are accepted. Rules upon which the Council bases its action appeared in the July (7:320) 1946 issue, and may be secured in pamphlet form upon request to the Secretary, Council on Pharmacy and Chemistry, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.

## SODIUM PARA-AMINOBENZOATE AND ACCEPTED BRANDS OMITTED FROM NEW AND NON-OFFICIAL REMEDIES

In 1947 the Council on Pharmacy and Chemistry accepted sodium p-aminobenzoate as an agent against rickettsial diseases and voted to include certain oral preparations in N. N. R. The manufacturer of an accepted oral preparation has presented an injectable dosage form. The Council considered use by injection dangerous and voted not to accept such a dosage form. Since aureomycin and chloramphenicol are more effective and less toxic agents for the treatment of the rickettsial diseases, the Council also voted to omit the accepted oral dosage forms of sodium p-aminobenzoate from N. N. R. in 1950. New brands and dosage forms of sodium p-aminobenzoate will be considered only if other uses for the drug are found.

(The Council on Pharmacy and Chemistry of the American Medical Association in the J. Am. Med. Assn., 144: 9 (1950) authorized publication of the above statement.)

Use of ACTH in the treatment of premature infants was reported by Drs. S. Levine, H. Barnett, C. Bierman, and H. McNamara, Cornell University, New York Hospital. Babies on a high protein, ascorbic acid-free diet developed defects in the metabolism of tyrosine and phenylalanine which could be corrected immediately with the administration of ascorbic acid. ACTH was also found to correct the metabolic defect, but its effect was not as rapid. The researchers are continuing their work in an effort to determine the reason for the difference in the action of the hormone and the vitamin.



## U. S. FOOD AND DRUG ADMINISTRATION

... a monthly summary of the terminated cases of the U.S. Food and Drug Administration in fields of interest to the pharmacist...

#### COURT JUDGMENTS-DECEMBER, 1950

ADULTERATED AND MISBRANDED DRUGS AND DEVICES			
Locality	Product	Violation and Scntence  Not sterile. Contaminated with living micro-organisms Sentence: Firm fined \$250.	
Bostou, Mass.	First-aid bandages		
ामा ॥ व्यामपृष्ठामयञ्जामा स्वतास्य सामग्रहास्य स्वीरामा सामग्रहास्य	ար և աշարգայացությանը և հայաստանական արև		
Locality	Product	Violation and Sentence	
Tucson, Ariz.	Barbiturates	Refilled prescriptions without physicians' authorizations.  Sentence: 1 defendant fined \$40.	
Tucson, Ariz.	Barbiturates	Refilled prescriptions without physicians' authorizations. Sentence: 1 defendant fined \$40.	
Peoria, Ill.	Barbiturates; Diethyl- stilbestrol; Sulfa tablets	Refilled prescriptions without physicians' authorizations.  Sold without physicians' prescriptions. Sentence: 2 defendants fined \$400 cach, plus costs.	
Baltimore, Md.	Barbiturates	Refilled prescriptions without physicians' authorizations. Sentence: 4 defendants fined \$25 each, plus court costs.	
St. Louis, Mo.	Barbiturates; Sulfa- thiazole	Sold without physicians' prescriptions. Sentence: 1 defendent fined \$200; placed on probation for 3 years.	
Toledo, Oliio	Thyroid; Metandrin; Sulfathiazole; Di- ethylstilbestrol	Sold without physicians' prescriptions. Sentence: 1 defendant and firm fined \$200 each.	
Milwaukee, Wis.	Barbiturates	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$1000 and placed on probation for 1 year.	

#### CURRENT INFLUENZA VIRUS IDENTIFIED

Reporting on current outbreaks of influenza appearing in several regions, the World Health Organization (WHO) has indicated that neither the spread nor the severity of the illness can be compared with more serious epidemics of influenza that occurred in the first part of this century.

So far, said a WHO statement, complications have been rare and mortality remains very low. Influenza may be fatal for the aged or for cardiac patients but, for the bulk of the population, "the considerable progress in chemotherapy of infectious diseases—especially the use of sulfonamides and antibiotics—permits successful vigorous action against the secondary infections which caused the highest fatality in 1918."

WHO has been notified of outbreaks in Hawaii

and Japan as well as in Europe, and the disease has appeared in Canada and the United States.

Research indicates that the virus causing the outbreak belongs to type A-prime. Identification of the isolated strains of the virus is continuing. This process is necessary for the preparation of vaccines corresponding to the current type of influenza.

The influenza epidemic now prevailing in northern Europe probably originated from a localized outbreak in Sweden last June, WHO believes. The disease appeared in November in Denmark and later in Norway and northern Sweden. In December it covered the whole of Sweden. The disease was apparently imported into the United Kingdom in the Newcastle area from the Scandinavian focus.

#### INFORMATION SERVICE

Members of the American Pharmaceutical Association are invited to submit their professional problems to llic Journal, 2215 Constitution Ave., N. W., Washington 7, D. C., giving all pertinent details. Advisory service is provided by the A. Ph. A. library and lechnical slaff and llie Journal panel of technical consultants.

## INCOMPATIBILITIES PRESENT DIFFICULT PROBLEMS

Will you kindly comment on the enclosed prescription copy. I am aware of the incompatibilities, but would appreciate any suggestions.—A. A. S., N. Y.

Phenobarbital Sod	0 4
Aminophyllin	70
Codeine Phos	0.4
Svr. Ephedrine SO4	ad 120.0

The prescription you sent in is an interesting one, but we were unable to solve the problems that it presents.

Our best attempts were directed toward making all ingredients sufficiently alkaline (pH 8.8) to keep the sodium phenobarbital in solution. We were able to prepare clear solutions by using sodium earbonate as an alkalizer, but crystals of phenobarbital and theophylline formed after standing for two or three days. The codeine and ephedrine are sufficiently soluble in alkaline form that they are not precipitated.

To furnish this solution sufficiently residual alkaquity to make it stable would make the preparation liuite unpalatable and perhaps even injurious.

We will keep your prescription on file and believe that the development of an elixir containing phenobarbital and aminophyllin would be sufficiently important to warrant further study when time permits. If we are able to develop anything that would be useful we will send you a summary of the work.

#### USE OF CERTAIN SOLVENTS DANGER-OUS IN GLACEING FRUITS

One of our customers has been manufacturing glacéed fruits by dissolving the glacéing malerials in ethyl alcohol, adding the solution to the fruits contained in a large vat and finally evaporating the alcohol rapidly, leaving the finished glacéed fruits behind. Due to the recent increase in the price of alcohol this manufacturer has replaced that solvent by carbon tetrachloride for use in the glacéing process. He has asked our opinion about the possibility of using isopropyl

alcohol in place of either alcohol or carbon tetrachloride. We have expressed the opinion to him that use of neither isopropyl alcohol nor carbon tetrachloride would be permitted under the Federal Food, Drug, and Cosmetic Act. Can you furnish us with information on this point or perhaps tell us what could be used in place of ethyl alcohol?—P. P., California.

We strongly recommend that neither carbon tetrachloride nor isopropyl alcohol be used in the manufacture of glaeéed fruits unless the Food and Drug Administration should definitely state that their use for this purpose is permitted. Carbon tetrachloride would be especially dangerous if any appreciable amounts were left behind in a food product. For your protection, as well as that of your customer, it is suggested that you write to the Food and Drug Administration, Washington 25, D. C., so that the information you obtain will be official.

#### PHARMACEUTICAL BOOKS WANTED

I was out of pharmacy for 25 years as a detail man. I am now relired and doing prescription work in a local store. I would appreciate a list of books that you might suggest for a man to use to bring his 1915 vinlage of pharmacy up to the present, at least on the practical side. For example, vitamins is a field in which I need a good book.—F. W. S., New Mexico.

There are several books which might serve to orient a pharmacist who has not been engaged in the actual practice of pharmacy for the past 25 years to new present-day conditions. Among these is New and Nonofficial Remedies which is issued under the direction and supervision of the Council of Pharmacy and Chemistry of the American Medical Association, and distributed by the J. B. Lippincott Company of Philadelphia. This book would be useful for obtaining information on the nature and present therapeutic status of new developments in the fields of antibiotics, antihistaminics, anti-infectives, analgesics, and other types of drugs which have been developed during the past ten years. An encyclopedic

type of book that would be of value for a review of modern pharmacy is the latest edition of Remington's Practice of Pharmacy which is published and distributed by Mack Printing Company, Easton, Pa.

The J. B. Lippincott Company of Philadelphia, over a period of the past five or six years, has published a number of pharmacy textbooks known as the American Pharmacy Series which would be useful for a systematic review of the fundamentals of pharmacy and pharmaccutical chemistry. The Modern Drug Encyclopedia and Therapeutic Index, published by Drug Publications, Inc., 49 45th Street, New York 19, New York, serves as a useful reference and source of information concerning modern pharmaceuticals. This book includes a comprehensive compilation covering most specialty products and furnishes in a clear and concise way pertinent information valuable to pharmacists.

#### CLEAR SOLUTION AUREOMYCIN

Would you ptease advise me tow to obtain a ctear solution of aureonycin (Lederle) for ophthalmic use. Most prescriptions calt for aqueous solutions of aureonycin of 50 mg./10 cc. concentration. Neither the crystalline nor the hydroctoride forms give satisfactory results. The addition of sodium tetraborate to the suspension does not correct the difficulty. For topical application, the addition of HCl has the advantage of giving a clear solution while increasing the activity of the antibiotic. Such a solution, however, proves to be too acidic for ophthalmic use.—G. W., Israel

The Aureomycin hydrochloride ophthalmic made by Lederle contains 25 mg. of aureomycin hydrochloride, 25 mg. of sodium borate and 62½ mg. of sodium chloride. This material is supposed to be dissolved in 5 cc. of distilled water. We recommend that you use this ophthalmic product. It should be noted that the solution should be kept in the refrigerator, and that it should not be used after it is two days old. Prepared in this manner, the solutions are buffered and are not irritating to the membrane of the eye.

#### HEXACHLOROPHENE SOAP

Will you please send me a formula for making hexachlorophene soap for use in a public school? F. H., Virginia.

A review of the methods of using hexachlorophene (G-11) as a skin germicide was published in the March-April, 1949, issue of *The Buttetin of the American Society* of *Hospitat Pharmacists*. In this article directions are given for the preparation of a one per cent solution of hexachlorophene in liquid soap. These directions are as follows:

"Ten grams of the monopotassium or monosodium salt of G-11 are dissolved in 50 milliliters of hot 95 per eent alcohol. The alcoholic solution is added with thorough mixing to 1 liter of soap solution previously prepared by dissolving 200 grams of clear potash soap in 800 milliliters of hot distilled water. Both solutions are cooled before mixing. The final product contains 5 per cent alcohol."

A soap such as that described above might be satisfactory for use in a public school.

Hexachlorophene may be obtained from the Sindar Company, 330 West 42nd Street, New York 18, N. Y. Information on sources of supply of a suitable liquid soap is probably available to you.

#### SYRUP CHOLINE

Thank you again for your wonderful cooperation solving our many problems with which we are confronting you from time to time. Any suggestions that would result in an improvement in the following formula for Syrup of Choline and Methionine would be appreciated:

Choline Chloride or Choline Dihydro	<b>)-</b>
gen Citrate	0.5~Gm.
dl-Mettrionine	0.5 Gm.
Distitled Water	2.0 cc.
Syrup Cherry qs. ad	5.0 cc.
-E. F., N	ew Jersey

We have worked on your formula for Syrup of Choline and Methioninc and we have reached the following conclusions:

- dl-Methionine as the free base is not sufficiently soluble to be dissolved in the volume of solvent specified.
- (2) Citrate of methioninc would be the most suitable salt to use along with choline citrate from the standpoint of taste, but this salt is not sufficiently soluble to be used in the concentration desired.
- (3) Methionine hydrochloride and choline chloride are very easily dissolved in the specified concentration and if a minimum amount of hydrochloric acid is used the taste is not so acidic as to be bothersome.

As a result of this work we recommend that you modify the formula as follows:

Choline Chloride	10 Gm.
dt-Methionine	
Diluted Hydroehlorie Acid	
Distilled Water	18 cc.
Syrup of Cherry qs. ad	

Dissolve the choline chloride and methionine in the water and hydrochloric acid using gentle heat. Add 36 ee. of the syrup of cherry and continue warming to insure that all solids are dissolved. Cool and make up the volume with syrup of cherry. This furnishes a clear and stable preparation. You can substitute methionine hydrochloride in the above formula and delete the hydrochloric acid if you wish. This would give an equivalent preparation.



STUDENT BRANCHES

niversity of Oklahoma Student
Branch became the 63rd student branch of the
American Pharmaceutical Association when its
charter was officially presented on January 5. Mr.
Roy L. Sanford, member of the Council of the
A. Ph. A. at Enid, Okla. represented the Association and made the presentation. In his speech to
student and faculty members of the University, Mr.
Sanford welcomed the student members of the newly
formed branch as affiliates of the A. Ph. A. and conferred upon them the authority to carry on the
student branch government and activities.

Bonnie Evans, junior pharmaey student, is the new secretary of the University of Texas Branch.

Members of the University of Utah Branch held a dinner-meeting, December 8, at the University Union Building.

Dr. George P. Child, Albany Medical College, addressed a meeting of the Albany College Branch, December 8. His speech dealt with alcoholism and mushroom poisoning.

The fourth regular meeting of the University of Kentucky Branch was held December 13. The regular business session was followed by a discussion of the policies and present status of the parent organization, the A. Ph. A.

State University of Iowa Branch held its regular meeting January 10. "Behind The Window," a sound film put out by E. R. Squibb & Sons, was shown to members.

Recently elected officers of the State University of Iowa Branch who will serve during the current school year are: Charles N. Cudworth, president; Henry Scheer, vice-president; Margery A. Rink secretary; and Verdell L. Haakenson, treasurer.

Officers of the University of Michigan Branch are: Don Wyss, president; Jerry Mancewicz, vice-president; Elsie Amtscuechler, secretary; and Emery Busch, treasurer.

December 6 was the date of the last fall term meeting for members of the Oregon State College Branch. Dr. J. M. Boyer, of Eugene, Oregon, spoke on the "Relationship of the Pharmaeist to the Practice of Medicine." A question period and discussion followed.

The University of Minnesota Branch held its last biweekly meeting of the fall quarter on December 1. Lieutenant Colonel Leonard P. Zagelow, professor of the pharmacy ROTC at the College, spoke on "Pharmacy in the Military Service," and presented an interesting picture of the duties of the pharmacist in the Medical Service Corps.

The St. Louis College of Pharmacy Branch sponsored a Christmas celebration on the campus, December 19 and 20.

The University of Connecticut Branch sponsored an illustrated talk on Pharmacology by Professor Howard L. Reed, head of the pharmacology department, Massaehusetts College of Pharmacy, January 17.

#### LOCAL BRANCHES

Branch inet on January 16 to hear Mr. O. C. Durham, of the University of Illinois, and Dr. Samuel M. Feinberg, of Northwestern University, discuss various allergies. Mr. Durham's speech dealt with "Allergy Under the Microscope." "Allergy and the Pharmaeist" was the title of Dr. Feinherg's talk.

John B. Dunne, professional services representative of Mine Safety Appliances Co., discussed the increasing use of oxygen in the treatment of diseases at the December 6 meeting of the Pittsburgh Branch.

Dr. James H. Kidder accepted the presidency of the New York Branch with a speech of thanks at the January 15 meeting. Other officers elected werc: Dr. John L. Dandreau, vice-president; Professor Frank J. Pokorny, secretary; and Mr. Harry Kayc, treasurer.

Featured speakers and their subjects at this meeting were: Samuel A. Dreyer, president of the New York Pharmaceutical Association, "Organization"; John F. O'Brien, chairman of the Branch Legislagive Committee, "The 1951 Legislative Program"; Calvin Berger, chairman of the Branch Grievance Committee, "Grievance Committee Activities and the Code of Ethics"; and Nicholas S. Gesoalde, secretary and business manager of the New York Pharmaceutical Association, "Fair Trade & Other Current Pharmaceutical Topics."

(Continued on Page 114)



#### COMBINATION OF 5 ANALGESIC-SEDATIVE DRUGS FOR

...more effective analgesia under lower narcotic dosage:

— the analgesics and sedatives enhance the effect of the narcotics, and vice versa...



#### ...reduced side-effects, such as nausea and constipation:

 the hyoscyamine content minimizes the undesirable sequelae af cadeine administration.



FORMULA:	Acetophenetidin, U.S.P. (Phenacetin)	3 gr.
	Acetylsalicylic Acid, U.S.P. (Aspirin)	2½ gr.
	Phenabarbital, U.S.P.	¼ gr.
	Hyascyamine Sulfate	.031 mg.
	Cadeine Phasphate V. ar.	ar Va ar

Phenaphen with 1/4 gr. Codeine Phosphate.
YELLOW and black capsules

Phenaphen with 1/2 gr. Codeine Phosphate— GREEN and black capsules



(Narcotic form required with eath order) · Available in bottles of 100 and 500.

Phenaphen with Codeine is being heavily promoted right now in the customary aggressive Robins' manner. You can expect good sales prontol



Makers of DONNATAL . PARALATE . ENTOZYME . ROBITUSSIN

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#### LOCAL BRANCHES • • • • • from page 112

A joint meeting of the Baltimore Branch and the Maryland Association of Hospital Pharmacists was held December 8. Mr. I. T. Reamer, president of the American Society of Hospital Pharmacists, spoke on "How the Retail Pharmacist May Benefit from Hospital Pharmacy Practice."

New officers are: Dr. Samuel W. Goldstein, president; Dr. Otto Muchlhause, vice-president; and Dr. Benjamin F. Allen, secretary-treasurer.

The January 11 dinner-meeting of the Philadel-phia Branch featured Dr. Samuel W. Goldstein and Dr. Joseph W. E. Harrisson as guest speakers. Dr. Goldstein, pharmaceutical chemist for the Maryland Department of Health, and president-elect of the Baltimore Branch, discussed "Standard Tolerances in Prescription Compounding." Dr. Harrisson, president of LaWall & Harrisson and department, head at the Philadelphia College of Pharmacy and Science, spoke on "Forensic Experiences."

The main feature of the joint meeting of the City of Washington and Baltimore Branches, January 12, was a panel discussion devoted to "The Current Status of the Prescription Refill Problem." A more detailed account will be found on page 88, This Journal.

Annual meeting of the Greater Los Angeles Branch was held January 11. The program consisted of an open forum on current pharmaceutical problems with audience participation.

Physicians and pharmacists participated in a panel discussion on the public interest aspects of clinic-owned pharmacies and dispensing by physicians. This discussion constituted the program of the meeting held November 16 under the auspices of the Los Angeles Branch of the American Pharmaceutical Association.

Robert Graves, president of the Branch, opened the meeting and the panel was conducted by Carl Weiner, president of the Alumni Association of the University of Southern California College of Pharmacy. Panel members were: Donald Cass, M.D., president of the California Medical Association; Morton Mayers, M.D., executive director of the Ross-Loos Medical Group; Roy Shipley, M.D. of the American College of Surgeons, and Ben Kingwell, president of the San Gabriel Pharmaceutical Association.

Clinic-owned pharmacies were defended in the talks of both Dr. Mayers and Dr. Cass. Dr. Mayers also pointed out that the Ross-Loos Medical Group did not favor "socialized medicine."

Dr. Shipley commended pharmacists for their assistance to medical associates, but stated that his opinion on clinic-owned pharmacies was still di-

vided. He referred to dispensing by physicians, in a clinic, as being due to the unavailability of pharmacists in many instances.

Expressing concern that the trend toward physician-owned pharmacies would aid the progress of "socialized medicine," Mr. Kingwell brought out figures on the trend in California. In 1949 there were 35 and in 1950 there were more than 70 clinic-owned pharmacies registered in the state.

In closing the meeting, Mr. Weiner re-emphasized the fact that the patient's privilege of choosing his physician, dentist, and pharmacist must never be transgressed.

#### ESTROGEN IN AMENORRHEA

Estrogen in the form of ethinyl estradiol (Eticylol) and oral progesterone in the form of anlydrohydroxyprogesterone (Lutocylol) were used successfully in fifty cases of secondary amenorrhea reported in the *New England Journal of Medicine* (243: 357, Sept., 1950) by Drs. W. P. Given, R. W. Gause, and R. G. Douglas.

Of the fifty patients, thirty-nine failed to monstruate after major weight reduction and thyroid replacement. Twenty-five of these responded favorably to a course of progesterone linguets. The remaining fourteen patients eventually menstruated after completion of a twenty-one day course of estrogen and the four-day course of progesterone linguets.

#### **O**bituaries

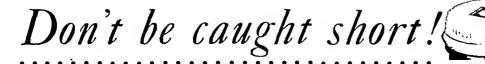
#### Jeremiah C. MacCartney

Members of the AMERICAN PHARMACEUTICAL ASSOCIATION share the sorrow of John A. Mac-Cartney, 2nd vice-president elect of the A. Ph. A., whose father Jeremial C. MacCartney, died at his Claysville, Pa., home, December 13.

Mr. MacCartney was born in Altoona, Pa., October 9, 1878. He was graduated from Ohio Northern University in 1899. He was a member of the National Association of Retail Druggists and the Claysville Better Business Bureau. At the time of his death, Mr. MacCartney was 72 years old, and had served his home district as a pharmacist for more than fifty years.

#### William Brown Bell

William Brown Bell, president of American Cyanamid Company, died suddenly on December 20, in Marrakech, French Morocco. Mr. Bell was on a business trip for his company.



## GELUSIL\*

The effective antacid well known on the market

Sales keep going UP UP UP

Stock your shelves now to meet this year's growing



INCREASED

PROMOTION
DETAILING
RX'S
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PROFIT FOR YOU

WHOLESALE LIST PRICE

Keep ahead of the possible shortage by having a good.

supply on hand.

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OLL		comes	uu

LIQUID	51ZE	EACH	DOZEN
	6 oz.	<b>\$ .70</b>	\$ 8.40
	12 oz.	1.10	13.20
TABLETS	50's	.70	8.40
	100's	1.35	16.20
	1000's	8.25	99.00

Buy in dozen lots for extra profit

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T.M.Reg. U. S. Pat Off.



FROM THE SECRETARY'S DIARY FOR JANUARY

The new year is under way with a vengeance. Even on the customary January 1 holiday the wires were hot with discussions of policy and plans with President Gregg, who keeps a close watch on professional and economic trends. Others communicating ideas and suggestions these days for the prescription refill brief and ways of meeting current problems included Hugo Schaefer, Sam Silverman and Pat Costello. Today a long session with our lawyers on the final communication to F. S. A. Administrator Ewing regarding the proposed prescription refill ruling. It is a fascinating experience to listen to the argument of keen legal minds like those of Arnold and Hamilton.

The first week of 1951 ends and the brief on prescription refills has been filed.

Word has been sent to the pharmaceutical press and to our co-workers in the State associations. The Civil defense manual has been summarized and issued to the body pharmaccutic which can now make much or little of a grand opportunity for professional recognition based on performance.

Now interspersing the daily routine with consultation on pharmacy's place in medical care with various governmental and private agencies engaged in exploring manpower resources. Listening today to the President's speech on the state of the union and greatly impressed with his plea for unity, which does not mean submergence of opinion or debate but calls for united action, once the controversial matters have been settled by the democratic process.

The mail and telephone bring many compliments on our civil defense bulletin which we gratefully acknowledge. A long conference today with experts on audio-visual education who think the A. Ph. A. could afford this type of public relations technique to present a clearer picture of its over-all function in serving the profession, the industry and the public.

Yesterday the judges of our Pharmacy Week display photographs gathered at headquarters to select the winners of the

annual contest and there were some good entries, as the pages of the March Journal will show. Today a visit from an advertising account executive who wanted to know some things about our publications and policies in order to better integrate his client's advertising with the character of our reader appeal. This was a refreshing experience and we would welcome similar visits from advertising men who want to serve their clients better. In the afternoon and evening the City of Washington Branch of the A. Ph. A. staged its first joint meeting with the Baltimore Branch and President Archambault and his co-workers are to be congratulated on the success of this meeting and dinner. We were glad to welcome so many pharmacists from Baltimore and Washington and so many students from the colleges of pharmacy in both cities to our headquarters building.

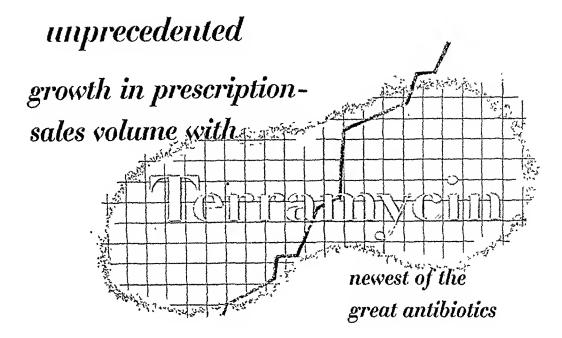
Now working away at the annual budget figures. Glad to welcome Richard Turner of "Pharmacy International" and "El Farmaceutico" who is booming the Second Pan-American Congress of Pharmacy to be held in Lima, Peru, this coming December. Saddened over the week end by the death of A. C. Taylor, one-time honorary president of A. Ph. A., and the District of Columbia's Grand Old Man of Pharmacy.

All this day in Baltimore with the Comnittee on Finance under the able chairmanship of Dr. R. L. Swain. Other
members of the committee, Drs. H. A. B. Dunning
and H. H. Schaefer as well as Council Chairman
Beal gave careful scrutiny to the budget figures
submitted and much time was spent in the proverbial job of making income meet expense.

Today and yesterday attending the special meeting called by the American Council on Education to consider emergency problems dealing with student enrollment and deferment and other emergencies confronting educators and their institutions. Later in the afternoon we welcomed 152 students of the Philadelphia College of Pharmacy and Science and members of their faculty who were on their way to visit manufacturing plants in the middle west. It is always a pleasure to have student groups visit the Headquarters Building and grounds.

26th Yesterday and today spent in Chicago at the annual meeting of the American Conncil on Pharmaceutical Education where the results of inspection of more than forty colleges of pharmacy were reviewed.

Today appearing before a subcommittee of the Senate Armed Forces Committee to tell of pharmacy's student requirement to keep the ranks of the profession intact for future service to the nation.



The rapid development of the Pfizer line of antibiotic specialties, and their phenomenal growth in prescription and hospital use tell a sales story unparalleled in the ethical drug industry.

Just as new dosage forms of Terramycin have been constantly added to meet the requirements of the medical profession, so too has the sales curve for this great new antibiotic gone up at an unprecedented rate—so too have grown your opportunities for increased profitable prescription business.

Terramycin sales will continue to grow because the story of this vital new therapeutic agent is constantly being brought to an ever-increasing number of physicians, through direct mail, medical-journal advertising, generous sampling campaigns, and personal calls by carefully selected and trained professional service representatives.

Available at your wholesaler:

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE CAPSULES

250 mg., bottles of 16 and 100; 100 mg., bottles of 25 and 100; 50 mg., bottles of 25 and 100 CRYSTALLINE TERRAMYCIN HYDROCHLORIDE LLINIR\*

1 5 Gni. with 1 fl. oz. of diluent,

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE INTRAVENOUS

10 cc. vial, 250 mg.; 20 cc. vial, 500 mg.

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE OPHTHALMIC OINTMENT

1 mg, per Gm. ountment; tubes of % oz.

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE OPHTHALMIC SOLUTION

5 cc. vial containing 25 mg. for preparation of topical solutions

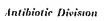
CRYSTALLINE TERRAMYCIN HYDROCHLORIDE OINTMENT

30 mg. per Gm. ointment; tubes of 1 oz.

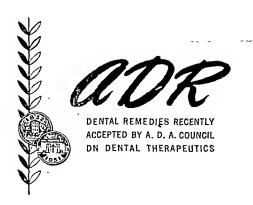
CRYSTALLING TERRAMYCIN TROCHES

15 nig each troche; packages of 24

\* Former designation, Terrabon







The classification of products by the Council on Dental Therapeutics of the American Dental Association has been described in a previous report [This Journal, 11, 371 (1950)].

THE FOLLOWING PRODUCTS ARE CLASSIFIED IN A. D. R. GROUP A:

Aureomycin Hydrochloride<sup>1</sup> (Crystalline) Capsules, 50 mg., 250 mg. (Lederle Laboratories Division, American Cyanamid Company): Each capsule is stated to contain aureomycin hydrochloride crystalline powder and excipients. (See A. D. R., ed. 16, p. 38.)

Aureomycin Hydrochloride¹ (Crystalline) Spersoids, 50 mg. (Lederle Laboratories Division, American Cyanamid Company): Each 3 grams contains 50 mg. of aureomycin hydrochloride crystalline powder in a chocolate flavored powder. Trademark: Spersoids. (See A. D. R., ed. 16, p. 38.)

Ledercillin Crystalline Procaine Penicillin G Troches, 5,000 Units (Lederle Laboratories Division, American Cyanamid Company): Each troche contains 5,000 units crystalline procaine penicillin G in a flavored base. (See A. D. R., ed. 16, p. 43.)

Penicillin G Procaine in Aqueous Suspension, 300,000 Units per cc. (Abbott Laboratories): Each cc. of aqueous suspension contains penicillin G procaine, 300,000 units, together with suspending and dispersing agents. Marketed in 1-cc. cartridges; 1-dose vials, 5-dose vials and 10-dose vials. (See A. D. R., ed. 16, p. 43.)

THE FOLLOWING PRODUCTS ARE CLASSIFIED IN A. D. R. GROUP B:

Aureomycin Hydrochloride¹ (Crystalline) Ointment Topical, 3% (Lederle Laboratories Division, American Cyanamid Company): Contains aureomycin hydrochloride crystalline powder in an ointment base. (See A. D. R., ed. 16, p. 38.)

Aureomycin Hydrochloride<sup>1</sup> (Crystalline) Troches, 15 mg. (Lederle Laboratories Division, American Cyanamid Company): Contains aureomycin hydrochloride crystalline powder in a flavored basc. (See A. D. R., ed. 16, p. 38.)

Council Classifies Oral Dosage Forms of Aureomycin Hydrochloride in Group A and Ointment and Troches in Group B

A general description of aureomycin hydrochloride<sup>1</sup> appears on page 38 of Accepted Dental Remedies, 1951.

It has been demonstrated that aurcomycin hydrochloride is effective against many of the infections by streptococci and staphylococci which are found in and about the mouth. There is reason to believe that aureomycin hydrochloride will be especially useful in the treatment of severe infections of this type which do not respond to penicillin. This antibiotic has also been recommended as a prophylactic against transient bacteremias associated with dental extractions. The fact that aureomycin hydrochloride is readily administered by mouth with slight danger of serious toxic effects suggests that this agent will be particularly adaptable to dental use. Some cases of nausea, vomiting and diarrhea have been reported following use of the drug.

In addition to its effectiveness against bacterial infections, there is growing evidence of the usefulness of aureomycin against virus infections in and about the mouth. The Council does not consider reports to date of the treatment of oral herpetic lesions with aureomycin hydrochloride to be conclusive, but believes that the reports are suggestive of its value for this purpose.

The oral dosage of this antibiotic in severe infections is between 5 and 10 mg. per kilogram of body weight every four hours. The lower dosage schedule may be used in the treatment of mild infections.

The Council believes that the established value of the drug for bacterial infections due to many gram-positive and gram-negative organisms and its potential value against certain virus infections justify classification of forms of aureomycin hydrochloride intended for oral use in Group A.

Several investigators have reported data on the prevention and treatment of herpes labialis by means of ointments of aureomycin hydrochloride. Other reports on the treatment of recurrent aphthac and cases of necrotic gingivitis using troches of aureomycin have appeared. The Council believes these reports indicate a probable usefulness for aureomycin hydrochloride by the topical route. It believes, however, that aureomycin hydrochloride products for topical application should be classified in Group B until further well-controlled confirmatory evidence is available to warrant their reclassification.

<sup>&</sup>lt;sup>1</sup> Patented. Patent No. 2,482,055. See A. D. R. ed. 16, p. iv.



## —is one of the 7 vital tests of a good R. Container

## DO YOUR PRESENT CONTAINERS MEET ALL SEVEN TESTS OF A GOOD Rx CONTAINER?

- 1. Have they smart, professional appearance?
- 2. Are they moisture-tight?
- 3. Are they sturdy?
- 4. Are they made of inactive material?
- 5. Are their contents visible?
- 6. Are they available in full size range?
- 7. Are they low in cost?

There is a reflection of orderliness and precision in the use of prescription containers which retain family identity and "custom fit" their individual prescriptions.

Duraglas containers come in a full range of sizes to fill every Rx need. In every size, their quality, style and color are uniform ... each is an able reflector of your professional competence. And you can have a full range of sizes with a lower inventory, because you can buy as few as a gross or less of any size.



## New A.Ph.W



THE ASSOCIATION EXTENDS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP DURING THE MONTH PRECEDING PREPARATION OF THIS ISSUE

ARIZONA Brothers, Orville W , Phoenix

ARKANSAS Moore, Charles E . Dumas

DISTRICT OF COLUMBIA Ferguson, Fred S, Washing

FLORIDA

Evans. Charles E, Melhourne Henderson, John A, West Palm Beach Leyton Herman L Miami Smith Robert E, Jackson-ville

IDAHO

Darling Donald L. Caldwell Frais, Dorothy D. Pocatelio

ILLINOIS

Zarob, Georgo A, Chicago

INDIANA

Elmer A, Indian-Crews Crews Elmer A, Indianapolis
Fox, II B, Bicknell
Gardner, Marshall J, Gary
Kinney, Nancy M, Fort
Wayne

McKinney, Forrest W , South Rend Meister, Leo C, East Gary Paynter, John J, Anderson Schussler, Frank J, Indian-

MARYLAND

Hocking, Harold J, Hyatts

MASSACHUSETTS

Mickles James, Boston Rosenberg, Samuel J, Dor-Zallen Harold Doreliester

MICHIGAN

Glendening, Joseph H, Osh \_ temo, \_ \_ .

la-

mazoo

MISSISSIPPI Johnson, Josephine P, University

MISSOURI

Blount, Charles W, Inde-pendence Griffin, J E, Kansas City Krummenacher Rudolph H, Richmond Heights

NEBRASKA Stelzriede, Lois Ann Omaha

**NEW JERSEY** 

Blackman, Charles, Jersey City
Eisenberg, Max, Hillsido
Goldman, Morris, Passaic
Holmes, Charles, East Rutherford
List Michael Newerk Liss, Michael, Newark Mintzer, Bernard A, New Brunswick

Smith, Howard S, Trenton

NEW YORK Casler, David R , East Green-bush Goldstein, Isidor A, Mt Vernon

Vernon Greenbaum S Samuel, New York Hahu John W , Albany Iwamoto, Harry K , Bniffalo Lee, Rose Marie, Buffalo Matteo, Frank, New York Rusch, Elsie M , Buffalo

OHIO

Loeuoci, Albert W, Cleveland

OREGON

Brown, Alfred H , Portland

PENNS YLVANIA

Belber, Samuel Philadelphia Elias, Dr William F, West Chester

Greeninger, Florence M, Quakertown Kern, Charles J, Philadelphia Lyon, Albert M, Philadel-Muth, Richard T , Bradford

RHODE ISLAND

Messier, Henry J, Central Falls Serpa, Joseph P , Middletown

SOUTH CAROLINA Fowler, Ernest G, Green-Hendricks, J. M., Easley

TENNESSEE

Long, R R, Maryville

TEXAS

Brown, Truman E , Austin Miculka, William M , Luling Tomlin, Maric, Dallas

VIRGINIA MeFall, John S , Jr , Newport

WISCONSIN Rliyme, Frank A., Portage Sedloff, George, Kenosha Stoltz, Arthur H., Mu

wonago

FOREIGN

Gay, Jorge, Col del Valle, Mexico Hooi, Cheng L, Kowloon, Hong Kong



#### Deceased Members

Howland, J A, Jordon, N Y Johnson, George Montgomery, Ala, Feb 26, 1950 Rainey, Russell D, At-lanta, Ga, Dec 29, Ala, 1950

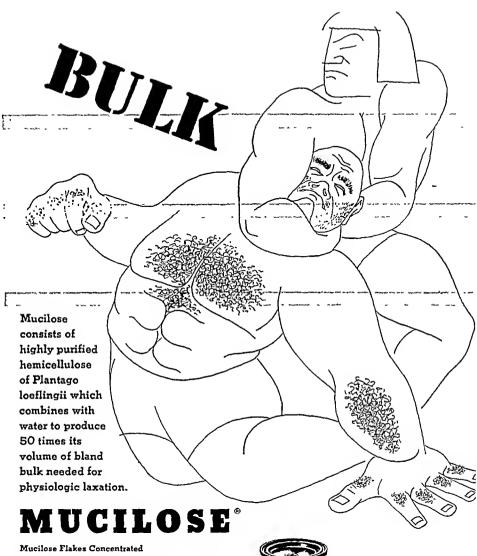
#### MAJOR CHANGES IN U. S. P. XIV......from page 95

ethylene glycol for glycerin. This change prevents softening under certain conditions. To provide a water insoluble ointment base, the U.S. P. XIV offers petrolatum rose water ointment in which liquid petrolatum is substituted for almond oil or persic oil on the grounds of better stability.

A radical departure in U.S.P. scope occurs with the mention of pesticides and insect repellents such as chlorophenathane (DDT), ethohexadiol (Rutgers 612), and an insect repellent solution.

The new U.S. P. also includes changes in the standards for Vitamin A and Vitamin D. The result is that slightly more of each undoubtedly will be stocked and dispensed by the pharmacist.

The U.S. P. Revision Committee is now considering proposals for U. S. P. XV. One of these is that each monograph indicate the pliarmacologic action of the item. Information of this kind has long been requested by pharmacists, but has not been included for legal and other reasons.



Mucilose Flakes Special Formula Mucilose Granules Special Formula

Available in 4 oz. and 16 oz. containers.

#### NEW

When bulk alone is not enough and stronger laxative action is needed, the new Mucilose with Cascara is the bulk laxutive of choice.

#### **MUCILOSE WITH CASCARA GRANULES**

Available in 4 oz. containers.

Winthrop Steatns ..... 1450 BROADWAY, NEW YORK, N. Y.

Mucilose, trademark reg U S & Canada



#### ASSOCIATIONS



Mr. Timothy S. Shea, past president of the Massachusetts Pharmaccutical Association, was recently elected president of the Massachusetts Board of Pharmacy. Mr. Shea, past president of the

Massachusetts Alumni Association, is a member of the National Board of Pharmacy, American Pharmaceutical Association, and National Retail Druggists' Association.

Dr. Leonard J. Piccoli, professor of Public Health at Fordham University, addressed the Puerto Rican Medical Association meeting at its annual convention in Santurce, Puerto Rico, December 15. Dr. Piccoli spoke on "Recent Developments in Vitamin B<sub>12</sub> Therapy," and showed a sound film entitled "Nutritional Aspects of Tropical Disease."

The annual mid-winter meeting of the New Jersey Pharmaceutical Association was held January 31, Rochelle Park, with the Bergen County Pharmaceutical Association as host. President Edward A. Thorne presided.

New Mexico Pharmaceutical Association held its mid-year executive meeting January 5, at Roswell. Emphasis was placed on a sound legislative program, particularly relative to the state act. Also discussed was the formulation of a State Food and Drugs law.

The January meeting of the District of Columbia Pharmaceutical Association was held at the Henry P. Gilpin Company auditorium, January 31.

Worcester was host to the Massachusetts Pharmaceutical Association at its Mid-Winter Pharmacy Conference, January 24. Mr. Shelby T. Grey, chief, Boston division, Federal Food and Drug Administration, spoke on "The Federal Food, Drug and Cosmetic Act as It Relates to the Practice of Pharmacy." Mr. Joseph J. Shine, editor of the Central Pharmaceutical Journal, spoke on "Modern Prescription Fecs."

During National Pharmacy Week, Onondaga County (Syracusc, N. Y.) pharmacists converted their pharmacies into headquarters to collect money for the purchase of a new electrocardiograph for Wieting-Johnson Memorial Hospital. The drive netted \$500 which the Onondaga County Pharmaceutical Association presented to Dr. Harry Feldman, Wieting-Johnson's director of research, at their annual Christmas party.

#### COLLEGES



Dr. Thomas D. Rowe, dean of the Rutgers University College of Pharmacy since 1946, has resigned to accept the deanship of the College of Pharmacy at the University of Michigan, July 1, 1951.

Dr. Rowe was born in Montana and attended the University of Michigan for two years. He received his B.S. degree from the University of Montana and his doctorate from the University of Wisconsin.

A member of the AMERICAN PHARMACEUTICAL ASSOCIATION, Dr. Rowe has served as chairman of the Committee on Public Relations since 1947. He is also a member of the New Jerscy Pharmaceutical Association, Rho Chi, and an honorary member of Phi Beta Kappa.

Dr. Winston M. Manning, of the Argonne National Laboratory in Chicago, will open the ninth "Frontiers in Chemistry" lecture series annually scheduled for late winter and early spring at Wayne University in Detroit. Co-sponsored by the International Society of the Friends of the Kresge-Hooker Library and Wayne's department of chemistry, the lectures will take place on Monday evenings.

Ninety-five students at the St. Louis College of Pharmacy donated blood when the American Red Cross Blood Mobile Unit visited the College on January 8.

Texas State University for Negroes is planning construction on a \$419,000 pharmacy building. This will be one of the wings of the new two million dollar administration-elassroom edifiee of the university.

Dr. George Urdang of the University of Wisconsin School of Pharmacy, was named recipient of the Laseoff Award for 1951. The Laseoff Award is presented annually by the American College of Apothecaries and will be presented to Dr. Urdang at the annual meeting of the group next August in Buffalo, N. Y.

Dr. Milton N. Neuroth, professor of pharmacy at the Medical College of Virginia, was recently cleeted national vice-president of Rho Chi, honorary pharmaceutical society.

(Continued on Page 124)



#### BRIEFLY NOTED • • • • • from page 122

Dr Halvey P. Frank, associate professor in Pharmacy, Philadelphia College of Pharmacy and Science, will be the guest of honor at the Alumni Mid-Winter Reunion Dinner at the College on Founders' Day, February 23. Dr. Frank has recently completed his 25th year of teaching at the Philadelphia College of Pharmacy and Science.

In appreciation of his services during the past five years, a scroll was recently presented to Charles R. Walgreen, Jr, president of the Walgreen Company, by the Advisory Committee of the University of Illinois College of Pharmacy. The scroll was signed by present members of the Advisory Committee

#### **MANUFACTURERS**



"Tele-Clinic," medical film abstract on meetings of national and international significance to the medical profession, has been hailed by Dr. Louis H. Bauer, secretary of the World Medical Association, as

an "important step in medical education." "Tele-Clinic" was produced by Wyeth, Inc., Philadelphia pharmaceutical concern, as a service to the medical profession. Fifty-five prints of the film report are now being made available to medical societies, hospital groups, and nursing organizations.

Many subjects of international importance were discussed at the annual marketing conference of Eli Lilly and Company, in which all sales managers and home office marketing personnel participated. The meeting ended with a formal banquet at the Indianapolis Athletic Club, at which President J. K. Lilly presided W. V. Murchie of St Joseph, Mo., was the principal speaker.

Smith, Kline & French Laboratories has obtained an injunction in the United States District Court, Brooklyn, against International Pharmaceutical Laboratories, Long Island firm. The court action resulted from a suit charging the defendants with making amphetamine tablets imitating the shape and color of Benzedrine and Devedrine, two Smith, Kline & French Laboratories products.

Canada will see color television for the first time this spring. Final arrangements were recently completed between Smith, Klinc & French Inter-American Corporation and officials of the Canadian Mcdical Association to broadcast a color television program of medical and surgical procedures during the Canadian Medical Association meeting, June 19–21. The program will be directed by the Smith, Kline & French Medical Television Unit and sponsored by the pharmaceutical firm's Canadian affiliate.

The Arner Company of Buffalo, N. Y., manufacturers of pharmaceutical specialties, recently entered the antibiotic and hypodermic tablet fields. New production and control facilities, including special temperature and lumidity controls, were recently installed and operations began in early November.

How the Arner Co., Buffalo, has grown from a five-man enterprise to one of the world's largest manufacturers of special formula pharmaceuticals is described in a new booklet, *The Story of the Arner Co.* Free copies may be obtained by writing The Arner Co., Buffalo, N. Y.

Commercial Solvents Corporation has been named agent for the Reconstruction Finance Corporation to expedite the movement of approximately 106,000,000 gallons of ethyl alcohol from France to the United States. This alcohol, to be delivered in 1951, will be used in the manufacture of butadiene.

The Armour Laboratories of Chicago recently opened in San Francisco the fourth of its new division offices and warehouses for pharmaceutical products.

#### Personnel Changes—

Sharp & Dohme, Inc.—Dr. Kenneth A. Koerber has been appointed chief industrial physician... David V. Knott, Philadelphia branch manager, has assumed duties as chief of Warehousing and Traffic. Mr. Knott succeeds Charles A. Krieger, who has been named administrative assistant to the director of purchases. Parke, Davis & Co.-Graydon L. Walker has been promoted to assistant director of sales and promotion Carl Johnson is the new United States sales manager. Wyeth, Inc.-Joseph Seifter, M.D., director of the Wyeth Institute of Applied Biochemistry, has been elected to a Fellowship in the New York Academy of Sciences. Bristol-Mcycrs Company-Dr. Delmas K. Kitchen is vice-president and chief medical counsel of the main company and its affiliates W. E. Crutchfield, Jr., has been appointed assistant medical director Robert B. Brown and Frederic N. Schwartz were elected directors. Commercial Solvents Corp.—M. M. Ricketts, formerly with Merck & Co., has been named director of C. S. C. Pharmaceuticals. American Cyanamid Company-Raymond C. Gaugler, director of the Company since 1929 and executive vice-president since 1947, was elected President. Chas. Pfizer & Co., Inc.-Dr. Alan Wright has joined the Company as director of medical service, Antibiotics Division. John E. McKeen, still retaining his post as company president, has been named Chairman of the Board. Norwich Pharmacal Company-Raymond A. Kaiser is now assistant manager of the West Central Division.

(Continued on Page 126)

## announcing...

### a superior, highly palatable sedative-antispasmodic

## elixir 'ESKAPHEN B with BELLADONNA'

Elixir 'Eskaphen B with Belladonna' combines, in a light and delightfully flavored elixir:

- 1. All the natural alkaloids of the time-proved antispasmodic: belladonna...to combat spasm.
- 2. The mild, calming sedative: phonobarbital . . . to relieve nervous tension.
- 3. Full therapeutic dosage of the virtually specific nutrient and restorative: thiamine... to help rectify dietary deficiencies.

Elixir 'Eskaphen B with Belladonna' will have broad therapeutic application in the many spastic conditions of smooth muscle. It will be of particular value to the physician in the treatment of spastic conditions of gastro-intestinal musculature. You should anticipate an immediate demand for this important new product.

Formula: Each 5 cc. teaspoonful contains: natural belladonna alkaloids, 0.2 mg.; phenobarbital, ¼ gr. (16 mg.); thiamine, 5 mg.; alcohol, 15%.

Package Size: 6fl. oz. bottles. List Price: \$12.96 doz.

Order an adequate supply from your wholesaler Today.

To be dispensed only by or on the prescription of a physician.

Smith, Kline & French Laboratories, Philadelphia

'Eskaphen B' T.M. Reg. U.S. Pat. Off.



#### BRIEFLY NOTED . . . . from page 124

#### AT RANDOM



National Children's Health Day, sponsored by the American Dental Association, was observed February 5. This third annual observance was designed to stress the development of expanded com-

munity dental health programs to make dental health education and care available to all children.

Dr. Edgar C. Britton, organic research director of Dow Chemical Company, was named presidentelect of the American Chemical Society for 1951.

A new display on surgical sutures showing some of the newer developments and techniques in this field was accepted by the Smithsonian Institution from Davis and Geck, Inc., Brooklyn suture manufacturing subsidiary of American Cyanamid Company. This display depicts in full color the story of modern surgical sutures stressing the development of the various kinds of sutures.

Dr. Lewis H. Sarett, Merck & Co., Inc., chemist, who at the age of 27 synthesized the anti-arthritis drug, cortisone, has been chosen to receive the Leo Hendrik Baekeland Award of the American Chemical Society's North Jersey Section for 1951. Presentation will be made at a dinner meeting of the Section in Newark, April 23.

In November, 1950, following his father's death, E. Allen Newcomb was elected to membership on the Steering Committee of the Bureau of Education on Fair Trade. He has now been named Secretary of the Committee, a position held by the late Dr. Edwin Leigh Newcomb since the group's formation in 1949.

A resolution honoring the late Dr. Edwin Leigh Newcomb for "outstanding contributions to the development and preservation of fair trade" was adopted by the Steering Committee of the Bureau of Education on Fair Trade at a meeting held in New York City, January 16.

"Detroit's most outstanding young man of the year" is the title recently conferred upon Dr. George Rieveschl, Jr., 34-year-old director of chemical research for Parke, Davis & Co., by the Detroit Junior Board of Commerce.

Dr. Rieveschl was primarily responsible for the ehemical work on Benadryl, first antihistamine to be made available for the treatment of hay fever and other allergies. He is a member of the AMERICAN PHARMACEUTICAL ASSOCIATION, American Chemical Society, American Association for the Advancement of Science, Sigma Xi, and Phi Beta Kappa.

#### HOSPITAL PHARMACY



Openings for internships in hospital pharmacy have been announced by the Johns Hopkins Hospital in cooperation with the Graduate School and the School of Pharmacy of the University

of Maryland. Appointments are for a period of twenty-two months beginning September 1, 1951. During this period, interns devote one-half time to hospital pharmacy training and one-half time to graduate study. This offers an opportunity for well-rounded practical experience in hospital pharmacy administration, pharmaceutical manufacturing, prescription compounding, dispensing, and in the preparation of sterile solutions and other sterile products.

Internships in hospital pharmacy are available to a limited number of 1951 or other recent graduates of recognized schools of pharmacy. Applicants should submit a statement giving full details as to date and place of birth, citizenship, health, marital status, education and pharmaceutical experience together with a small, recent photograph.

An official transcript of the applicant's college record is required. The applicant should ask the dean and two other members of the faculty of his college to write to the Director giving their estimates of the applicant's personality and fitness.

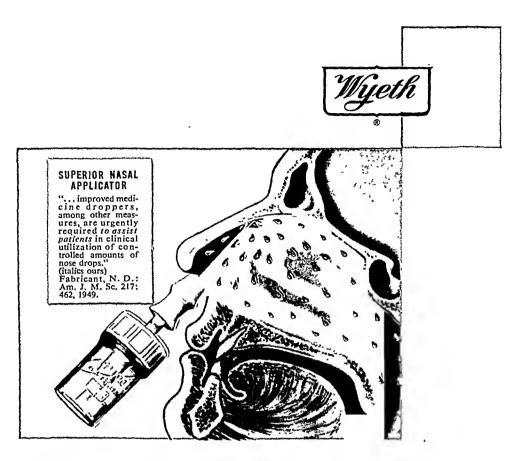
Letters of application and other required information should be forwarded to Edwin L. Crosby, M.D., Director, The Johns Hopkins Hospital, Baltimore 5, Md., not later than April 1, and appointments will be announced on or before May 15, 1951.

John T. Murphy, chicf pharmaeist at the Massachusetts General Hospital, has been appointed consultant in Hospital Pharmacy at the Massachusetts College of Pharmacy. He is past-president of the Massachusetts Society of Hospital Pharmacists and is in charge of one of the most extensive hospital pharmaeies in the United States.

As part of an over-all long-range modernization program, the St. Francis Hospital in San Franciseo is constructing a modern pharmacy at an estimated expense of \$50,000. This will replace the existing facilities opened in 1911 to serve a bed capacity of 100. Since then the hospital's capacity has been tripled but the hospital pharmacy has never been enlarged to meet the increased demands.

Wilfrid Ullrich, retail pharmaeist in Aurora, Ind., has been appointed an assistant director of Civilian Defense in Dearborn County. He will be in charge of Health Serviec, Emergency Welfare, and Special Weapons Defense. Mr. Ullrich is a past-president of the Indiana Pharmaecutical Association and is presently a member of the Indiana Board of Pharmacy.

(Continued on Page 128)



To Assist Patients... Clinicians recognize the important role that the method of administration plays in the successful use of nasal medication. With JETOMIZER, the patient can follow the prescribed dosage regimen—literally without bending over backward—because JETOMIZER assists the patient to secure optimum benefit from the aqueous medication you prescribe.

- Distributes medication throughout the nasal airways.
- Piston-valve action avoids overdosage.
- No risk of injuring delicate tissues.
- Safe from contamination.
- · Reclining position unnecessary.
- · Secures willing cooperation of young and old.

Economy note—The cost of JETOMIZER has been sharply reduced; Your patient will find it a useful item for his medicine cabinet.

## JETOMIZER\*

NASAL APPLICATOR

Wyeth Incorporated, Philadelphia 2, Pa.

## BRIEFLY NOTED ••••• from page 126 GOVERNMENT



The nation's retail pharmacists filled 736,000 prescriptions for veterans under the Veterans Administration "home town" pharmaes program during 1950, E. Burns Geigei, chief of VA's pharmaey

division, announced this month.

The 736,000 prescriptions represented an increase of 135,000 over the total filled in 1949.

In addition to prescriptions compounded by private druggists, a total of 3,397,000 were filled during 1950 in VA hospitals and centers, and another 1,201,000 were filled in VA regional offices. These two totals, aggregating 4,601,000, represent a 125,000 increase over the prescriptions filled by VA pharmacists during 1949.

Veterans Administration has issued regulations outlining conditions under which veterans, disabled after fighting started in Korca, may be entitled to Public Law 16 rehabilitation training. The new law also requires that VA may pay compensation rates for disabilities at full warrime rates.

Dr. Richard L. Meiling, who has been director of the Office of Medical Services, Department of Defense, for the last 15 months, has been named chairman of the Armed Forces Medical Policy Council, a new agency that combines in one organization leading military and civilian medical and health authorities. Dr Meiling, as civilian chairman of that unit, will also serve as principal adviser and assistant to the Secretary of Defense on medical and health matters

Other members of the Council include Maj Gen. Raymond W Bliss, surgeon general of the Army, Rcar Adm Lamont Pugli, surgeon general of the Navy, Maj. Gen Harry G Armstrong, surgeon general of the Air Force. They will serve with three civilians to be selected by the Secretary of Defense.

Recent appointments: Dr. William A. Feirer, vice-president in charge of scientific aflairs for E. R. Squibb & Sons, New York, has been named a member of the Panel on Chemical Warfare Programs and chairman of the Subpanel on Medical and Toxicological Aspects in the Department of Defense.... Federal Security Administrator Oscar R. Ewing recently announced the appointment of Clark Tibbitts as chairman of the agency's Committee on Aging and Geriatrics ... Dr. Russell M. Wilder, internationally known medical scientist, has been appointed director of the recently established National Institute of Arthritis and Metabolic Diseases of the PHS.

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### **ASCORBIC ACID**

The new steroid hormone, pregnenolone, produces remission in many cases of rheumatoid arthritis... giving relief from pain, increasing muscle strength, improving general vigor and sense of well-being.

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per tablet: pregnenolone acetate ascorbic acid

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#### NEW APPOINTMENTS

To serve American Pharmaey better and to absorb the many additional duties resulting from the national emergency, the headquarters staff of the AMERICAN PHARMACEUTICAL ASSOCIATION is being strengthened and enlarged.

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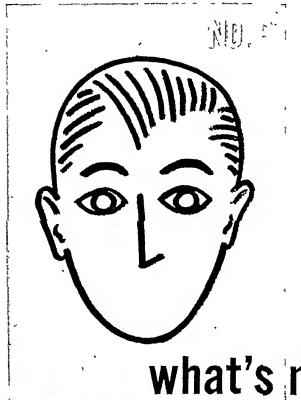
PUBLISHED by the American Pharmaceutical Association Publication Office: 20th and Northampton Streets, Easton, Pa Editorial office (and address for all correspondence): 2215 Constitution Aye., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journal of the American Pharmaceutical Association, complete (both editions): United States and Pan America \$7; Canada \$7.70; other foreign \$8; members of the American Pharmaceutical Association with dues, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition; United States and Pan America \$4; Canada \$4.38; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Canada \$0.40; other foreign \$0.50. foreign \$0.50.

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ENTERED as second-class matter January 23, 1917, at the Post Office at Easton, Pennsylvania, under the net of March 3, 1879, as 24 times n year; Scientific Edition monthly on the 5th; Practical Pharmacy Edition monthly on the 20th. Acceptance for mailing at n special rate of postage provided for in Section 1103. Act of October 3, 1917, nuthorized July 10, 1918.



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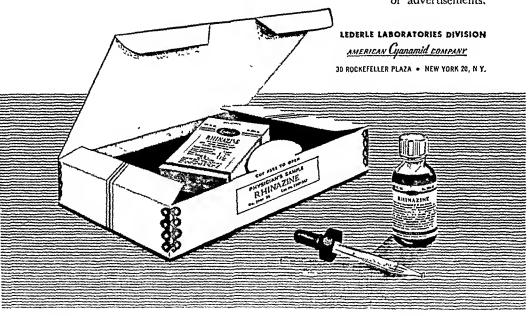
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Building prescriptions

SAMPLING is the backbone of most plans to interest physicians in new, or for that matter old, products. Lederle liberally samples the profession with its numerous products, by means of its salesmen and occasionally by mail. Nothing is so potent in bringing the patient to the pharmacist, with a prescription, as a sample of the drug prescribed actually resting upon the physician's desk blotter.

The Lederle organization does not, and never will, sample on an overwhelming mass basis, whereby a snowstorm of samples attempts to provide promotional effect. Only those ethical methods that will promote a healthy professional and trade situation, with respect to distribution of its products, are used by Lederle,

as indicated in this series of advertisements.



This month Lederle will bring to the attention of physicians the following products:

AUREOMYCIN—The antibiotic that has been termed the "wonder drug," because of its effectiveness against a wide range of bacterial, rickellsial, protozoal and near viral intections rickellsial, protozoal and near viral intections.

Capsules: Bottles of 25 and 100, 50 mg each capsule.

Bottles of 25 100 mg each capsule.

Bottles of 15 100 mg and 500 mg.

Bottles of 16 and 100 250 mg. each capsule.

Intravenous Visis of 100 mg and 500 mg.

Ointment: Tubes of ½ and 1 ounce.

Ointment: Gohthamic Isx tubes of ½ ounce each.

Ophthalmic: Visis of 25 mg. with dropper.

SPERSOIDS\*: Jars of 12 doses and 25 doses.

Test Tablets: 4 tubes of 25 tablets each 0 05 mg. each tablet.

Soluble Tablets: Tubes of 40 50 mg. each tablet.

Troches: Bottles of 25 and 250, 15 mg. each troche.

TEROPTERIN\* Sodium Pleroyl Triglulamale— The parenterat product used in the palliation of malignancy 12 ampuls of 1 cc , and vials of 10 cc.

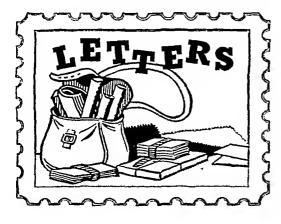
PERIHEMIN\*\* Iron-Biz-C-Folic Acid-Stomach Liver Fraction These capsules have mel

Bottles of 100 and 1,000 capsules

HEPARIN—A natural product tractal for the Vials of 1 cc. with disposable syringe

MUMPS VACCINE—The new vaccine that is effective in providing immunity against a troubtesome disease, for use in certain adults, alt children, and other selected groups Vials bt 2 cc., and 10 cc





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Sirs:

Thank you very much for your kind and quick response to my request for information.

It is indeed most gratifying to know that we have in the AMERICAN PHARMACEUTICAL ASSOCIATION a means for seeking expert information on the many problems which continuously present themselves to our profession.

Brooklyn, N. Y.

ANTHONY J. MONTE BOVI

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In our humble opinon, both the American Pharmaceutical Association and the American Society of Hospital Pharmacists are accomplishing splendid work in the interests of Pharmacy as a profession. We find both Journals indispensable in solving many problems that arise. They also serve as a stimulus to keep abreast of modern developments, a necessary but rather difficult accomplishment in a busy life.

We extend our wishes for your continued success, especially in maintaining the high standard of professional ethics that are our heritage. This will be assured if we all follow the example of that great father of your country, Abraham Lincoln, namely, to beg the blessing of God on your work. This we do most sincerely.

Toronto, Canada

SISTER MARY AVILA

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I think that it is an excellent idea to include the pharmacist in the educational program to combat incapacitating and disastrous diseases.

It is also true that the average pharmacist comes in contact with these unfortunates in more eases than anyone else except the physician.

The average pharmacist, while not eapable of diagnosis, can inform these patients where to go for proper care and treatment. He can also inform those people who disregard important symptoms of the seriousness of these symptoms. The pharmacist's value in these programs is limitless and I believe that they should be continued.

Brooklyn, N. Y.

CHARLES ROSENBERG

Sirs:

Educational work of the A. Ph. A., such as that on heart discase, deserves continued consideration. This helps not only interprofessional relations, but places the pharmacist in direct liaison between physicians and the public.

Any step to further the professional advancement of pharmacy deserves our complete cooperation.

Milwaukee, Wis.

II. M. Bohn

Sirs:

We think that the counter-card series is an important part of the American Pharmaceutical Association, and would like to see further educational campaigns carried out along the same lines.

Syracusc, Ind.

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Sirs:

I believe the health information programs, especially the one relating to heart disease, should be continued. I feel sure that constant display of this information in all drugstores will produce the desired results.

Lowell, Mass.

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Sirs:

The health information series devoted to the fight against heart disease has been of great value in our community. This work should be continued.

Chieago, Ill.

HAROLD KLUCKLR

Wants to Correspond with Pharmaeists Sirs:

I am an English pharmacist, with a large mixed dispensing business, handling between 70,000 and 80,000 prescriptions per annum, and would appreciate obtaining correspondents in your country, to maintain contact with ethical pharmaceutical developments (new products, reports, etc.).

I would naturally reciprocate by giving details of our own products, and the trend of current pharmaceutical thought in England.

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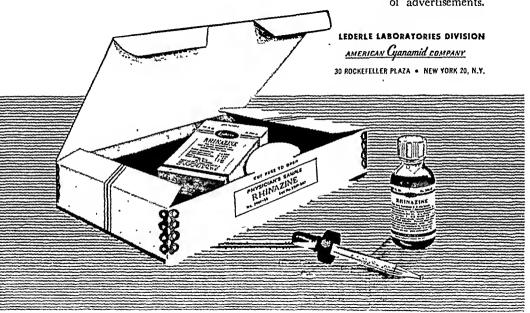
WALTER F. PICKUP

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Intravenous: Vials of 100 mg, and 500 mg.
Ointment: Tubes of ½ and 1 ounce.
Ointment: Olphibalmic, Six tubes of ½ ounce each.
Ophthalmic: Vials of 25 mg, with dropper.
Oils: Vials of 50 mg, with 10 cc. vial distent.
SPERSOIDS: Jars of 12 doses and 25 doses.
Test Tablets: 4 tubes of 25 tablets each 0.06 mg, each tablet.
Soluble Tablets: Tubes of 40, 50 mg each tablet.
Troches: Bottles of 25 and 250, 15 mg, each froche,

TEROPTERIN\* Sodium Pteroyi Trigiutamate— The parenteral product used in the patitation of malignancy. 12 ampuls of 1 cc., and vials of 10 cc.

PERIHEMIN\*\* Iron-Biz-C-Folic Acid-Stomach-Liver Fraction. These capsules have met

Bottles of 100 and 1,000 capsules.

HEPARIN-A natural product testul for the treatment and prevention of vascular thrombosis, including coronary thrombosis, cerebral thrombosis. and the various other forms of this condition Vials of 1 cc. with disposable syringe.

MUMPS VACCINE—The new vaccine that is effective in providing immunity against troublesome disease, for use in certain adults, it children, and other selected groups Vials of 2 cc. and 10 cc

\*REQ. U.S. PAT. DIF.





Product descriptions may be clipped and filed on three- by five-inch cards. These are also indexed for quick reference in the "Monthly Drug Index" appearing on the last page of each issue. A product is described in this column for the information of pharmacists who may be asked by physicians to stock the drug, or who may receive professional inquiries about it. A listing does not imply evaluation or recommendation by the Association, nor does omission of any product have significance concerning its merit.

#### ACETOXANON

Description: A suspension, containing in each cc.: 100 mg. of microcrystalline 21-acetoxy pregnenolone in an aqueous medium containing glucose, polysorbate 80, and a preservative,

Form Supplied: 10-cc. multiple-dose vials.

Action: Recommended for treatment of rheumatoid arthritis among carefully selected patients. Not given if permanent fibrotic changes have occurred.

Administration: Initial dose: 100 mg. three times a day, given deep into the muscle. Dose is gradually reduced to 100 mg. daily during third or fourth week.

Source: Organon Inc., Orange, N. J.

## CANINE DISTEMPER VIRUS (MODIFIED) AVIANIZED

Description: Canine distemper virus vaccine of chick-embryo origin.

Form Supplied: One-dose packages for dogs and ten-dose packages for mink. Each package consists of one yial of dried vaccine and one yial of diluent.

Action: Active immunization against canine distemper.

Administration: One injection.

Source: Lederle Laboratories Division, American Cyanamid Company, New York 20, N. Y.

#### CER-O-CILLIN

Description: Cer-O-Cillin (crystalline penicillin O, potassium) differs from penicillin G in that the benzyl group of the latter is replaced by the allylmercaptomethyl group.

Form Supplied: Sterile vials, each containing 200,000 units.

Action: Indicated in penicillin G-sensitive pa-

tients in streptoccic, staplylococcic, pneumococcic, and gonococcic infections.

Administration: Intermittent muscular injection. Initial dose of 50,000 to 100,000 units followed by injections of 30,000 to 50,000 units every three to four hours.

Source: The Upjohn Company, Kalamazoo, Mich.

## CHLOR-TRIMETON MALEATE INJECTION

Description: Each cc. contains 2 mg. of chlor-prophen pyridamine inaleate.

Form Supplied: One-cc. (single dose) ampules or 10-cc. multiple-dose vials.

Action: Antagonizes many effects of histamine and in prevention and relief of allergic manifestations.

Administration: Usually 1 or 2 cc. intramuscularly. If no unfavorable reactions from last dosc, 5 cc. may be given. A test dose of 1 cc. should be given when possible to determine tolerance.

Source: Schering Corporation, Bloomfield, N. J.

#### DOFOCYTE

Description: An injectable sterile, aqueous solution, each cc. containing: vitamin  $B_{\rm E}$ , 30 micrograms; folic acid, 10 mg.; and liver injectable, 10 units.

Form Supplied: 10-cc. vials.

Action: Treatment of primary and other types of anemia.

Administration: As directed by physician.

Source: E. S. Miller Laboratories, Inc., Los Angeles 11, Calif.

(Continued on Page 136)



## If "imitation is the sincerest form of flattery"

must be good

The originators of any important advance in therapeutics expect that duplications and variations of their product will inevitably appear.

When Cellothyl was offered as the first significant advance in bulk therapy in years, "variations" were expected as usual, but not the avalanche which has recently appeared. At the latest count more than 40 had reached the market - an impressive tribute to the efficacy and professional acceptance of this new approach to constipation correction.

#### The high degree of acceptance accorded Cellothyl reflects-

- 1. the wealth of clinical papers, published and in preparation, which refer not just to a new kind of bulk therapy but specifically to Cellothyl.
- 2. the "Chilcott process" by which Cellothyl exclusivel; is prepared.
- 3. the steady and increasingly heavy promotional campaign which has been carried on for over three years, to the medical profession and drug trade exclusively.

#### Cellothyl was introduced over 3 years ago—the first bulk laxative in tablet form

▶ has been accepted by the Council on Pharmacy and Chemistry of the American Medical Association

#### Cellothyl is the ONLY brand of methylcellulose

- > studied at the Mayo Clinic for treatment of constipation1
- found to correct both acute and chronic constipation in 92% of cases2
- available in both tablet and granule form

#### CELLOTHYL TABLETS

- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	ALL CLIPTED.	
50's	\$ .60	\$7.89
100's	1.00	1.49
500's	4.00	5.95
5000's	32.00	48.00

#### CELLOTHYL GRANULES (for infants and children)

25 gram	.54	.79
100 gram	1,67	2.47

1 Gastraenteralogy 13:275 1949 2. N Y State J Med 48-1822 1948

#### CHILCOTT

Laboratories DIVISION OF The Maltine Company

MORRIS PLAINS, NEW JERSEY

NEW R PRODUCTS • • • • • from page 134

#### DOFOCYTE MILD

Description: An injectable, sterile, aqueous solution, each cc. containing: vitamin B<sub>12</sub>, 15 micrograms; folic acid, 5 mg.; and liver injectable, 5 units.

Form Supplied: 10-cc. vials.

Action: Treatment of primary and other types of anemia.

Administration: As directed by physician. .

Source: E. S. Miller Laboratories, Inc., Los Angeles 11, Calif.

#### HORMESTRIN-T

Description: An injectable, sterile, aqueous solution, each cc. containing 20,000 units of estrone and 25 mg. of testosterone.

Form Supplied: 10-cc. vials.

Action: Indicated in treatment of menopause and carcinoma of prostate.

Administration: As directed by physician.

Source: E. S. Miller Laboratories, Inc., Los Angeles 11, Calif.

#### KONOGEN

Description: Tablets, each containing a mixture of natural estrogens obtained from the urine of pregnant mares. The primary active ingredient is sodium estrone sulfate.

Form Supplied: Tablets containing 0.625 mg., 1.25 mg., and 2.5 mg., respectively, in bottles of 25 and 100.

Action: Treatment of menopausal symptoms and in senile vaginitis.

Administration: Doses of 1.25 mg, daily for one to two weeks. Dose may be increased gradually if response is not satisfactory. Dose may be reduced after relief of symptoms until maintenance level is found.

Source: Eli Lilly and Company, Indianapolis, 6, Ind.

#### MUMPS VACCINE (LILLY)

Description: A suspension of killed mumps virus in physiological saline solution, containing merthiolate as a preservative.

Form Supplied: In 2-cc. vials.

Action: For immunization against mumps. To be given only during or after adolescence.

Administration: Two subcutaneous injections of 1 cc. each, given five to ten days apart.

Source: Eli Lilly and Company, Indianapolis 6, Ind.

#### NEO-HOMBREOL (F)

Description: Each cc. contains 25 mg. of testosterone as fine crystals in an aqueous suspension

containing 0.04 per cent polysorbate 80, 0.45 per cent phenol as a preservative, and made isotonic with 4.1 per cent dextrose.

Form Supplied: 10-cc. vials, boxes of one and six vials.

Action: For all disturbances in which male hormone therapy is indicated.

Administration: By injection. Source: Organon Inc., Orange, N. J.

#### PENTRISUL

Description: Oral penicillin with sulfonamides. Each tablet provides: potassium penicillin-G, 100,000 units; sulfadiazine, 0.165 Gm.; sulfamcrazine, 0.165 Gm.; and sulfamethazine, 0.165 Gm.

Form Supplied: Bottles of 30 and 100 tablets.

Action: Oral control of infections susceptible to either penicillin or sulfonamides.

Administration: Adults: initial dose of four to six tablets, followed by one tablet every three to four hours. Cluldren: initial dose of 0.06 to 0.1 Gm. per kilogram of body weight up to 40 kg., followed by 1/2 initial dose every three hours.

Source: U. S. Vitamin Corp., New York 17, N. Y.

#### STENEDIOL

Description: As an aqueous suspension, each cocontains 25 mg. of methyl androstenediol. Oral and buccal tablets each contain 10 or 25 mg. of methyl androstenediol.

Form Supplied: Boxes of one or six 10-cc. vials; 10-mg. oral and buccal tablets in bottles of 30 and 100; 25-mg. oral and buccal tablets in bottles of 15 and 100.

Action: In treatment of conditions in which tissue-building action is required, as in retarded growth and certain endocrine deficiencies and constitutional diseases accompanied by protein wastage, negative protein balance, or failure to build body protein.

Administration: Average dose is 25 mg. orally, buccally, or intramuscularly two to five times a week. In children, initial dosage of 5 to 10 mg. onc to three times a week.

Source: Organon Inc., Orange, N. J.

#### SUR-BEX SYRUP

Description: Each 5 cc. contains: vitamin B<sub>12</sub>, 2 micrograms; thiamine hydrochloride, 6 mg.; riboflavin, 6 mg.; nicotinamide, 30 mg.; pyridoxine hydrochloride, 1 mg.; and brewer's yeast extract, 0.2 Gra.

Form Supplied: Pint and gallon bottles.

Action: Vitamin therapy; prophylaxis or moderate deficiencies.

Administration: One to two teaspoonfuls daily (adult dose). Therapeutic doses as determined by physician.

Source: Abbott Laboratorics, N. Chicago, Ill.

(Continued on Page 138)



# MIC antibiotic activity WICE antibacterial range and FAMSOME repeat order potential

with this new logical combination



in the new Drain Free vial

Now, for the first time, Parke-Davis makes available IN A SINGLE VIAL this logical combination of antibiotics:

soluble penicillin for rapid action repository penicillin for sustained response dihydrostreptomycin for added antibacterial range

#### Bound To Appeal To Every Physician

Effective against a wider range of organisms.

Prompt effect on bacteria susceptible to penicillin or to streptomycin alone.

"Crossfire" action on organisms susceptible to both autibiotics.

Convenience of combined antibiotic therapy in one syringe.

Drug-fastness reduced.



#### Bound To Appeal To You

First on the market with this effective combination. Intensive promotion to physicians by all Parke-Davis representatives.

Extensive advertising in leading medical journals. Direct-by-mail reminders to every physician.

#### Drain Free Vials

Penicillin S-R with Dihydrostreptomycin is supplied in Drain Free vials which prevent wasted dosage due to the "vial clinging" properties of the contents. When diluent is added to the contents of the vial, the resulting suspension does not adhere to the glass, and the physician is assured of inbtaining nll of the contents of the vial, Each Drain Free vial is treated with an mert chemical compound which is non-toxic and provides a water-repellent surface to the glass.

#### Penicillin S-R with Diliydrostreptomycin

PARKE, DAVIS & COMPANY

NEW R PRODUCTS • • • • • from page 134

#### DOFOCYTE MILD

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Form Supplied: 10-cc. vials.

Action: Treatment of primary and other types of anemia.

Administration: As directed by physician. .

Source: E. S. Miller Laboratories, Inc., Los Angeles 11, Calif.

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Action: Treatment of menopausal symptoms and in senile vaginitis.

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Form Supplied: 10-cc. vials, boxes of one and six vials.

Action: For all disturbances in which male hormone therapy is indicated.

Administration: By injection.

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Form Supplied: Bottles of 30 and 100 tablets.

Action: Oral control of infections susceptible to either penicillin or sulfonamides.

Administration: Adults: initial dose of four to six tablets, followed by one tablet every three to four hours. Children: initial dose of 0.06 to 0.1 Gm. per kilogram of body weight up to 40 kg., followed by 1/8 initial dose every three hours.

Source: U. S. Vitamin Corp., New York 17, N. Y.

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Description: As an aqueous suspension, each cocontains 25 mg. of methyl androstenediol. Oral and buccal tablets each contain 10 or 25 mg. of methyl androstenediol.

Form Supplied: Boxes of one or six 10-cc. vials; 10-mg. oral and buccal tablets in bottles of 30 and 100; 25-mg. oral and buccal tablets in bottles of 15 and 100.

Action: In treatment of conditions in which tissue-building action is required, as in retarded growth and certain endocrine deficiencies and constitutional diseases accompanied by protein wastage, negative protein balance, or failure to build body protein.

Administration: Average dose is 25 mg. orally, buccally, or intramuscularly two to five times a week. In children, initial dosage of 5 to 10 mg. one to three times a week.

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#### SUR-BEX SYRUP

Description: Each 5 cc. contains: vitamin B<sub>12</sub>, 2 micrograms; thiamine hydrochloride, 6 mg.; riboflavin, 6 mg.; nicotinamide, 30 mg.; pyridoxine hydrochloride, 1 mg.; and brewer's yeast extract, 0.2 Gm.

Form Supplied: Pint and gallon bottles.

Action: Vitamin therapy; prophylaxis or modcrate deficiencies.

Administration: One to two teaspoonfuls daily (adult dose). Therapeutic doses as determined by physician.

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(Continued on Page 138)



# TIGH antibiotic activity WICE antibacterial range and handSOME repeat order potential

with this new logical combination



in the new Drain Free vial

Now, for the first time, Parke-Davis makes available IN A SINGLE VIAL this logical combination of antibiotics:

soluble penicillin for rapid action 'repository penicillin for sustained response dihydrostreptomycin for added antibacterial range

### Bound To Appeal To Every Physician

Effective against a wider range of organisms.

Prompt effect on bacteria susceptible to penicillin or to streptomycin alone.

"Crossfire" action on organisms susceptible to both antibiotics.

Convenience of combined antibiotic therapy in one syringe.

Drug-fastness reduced.

### Bound To Appeal To You

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### Drain Free Vials

Penicillin S-R with Dily drostreptomycin is supplied in Drain Free vials which prevent wasted dosage due to the "vial clinging" properties of the contents. When diluent is added to the contents of the vial, the resulting suspension does not adhere to the glass, and the physician is assured in obtaining all of the contents of the vial Each Drain Free vial is treated with an inert chemical compound which is non-toxic and provides a water-repellent surface to the glass.

### Penicillin S-R with Dihydrostreptomycin

(Parke-Davis Penicillin and Dihydrostreptomycin Sulfate) Each 3 cc with aqueous diluent contains



PARKE, DAVIS & COMPANY

### NEW R PRODUCTS . . . . from page 136

### SYNEPHRICOL THENFADIL.

Description: A syrup, each teaspoonful (4 cc.) containing: phenylephrine hydrochloride, 5.0 mg.; Thenfadil hydrochloride, 4.0 mg.; codeine phosphate, 8.7 mg.; potassium guaiacol sulfonate, 70.0 mg.; and ammonium chloride, 70.0 mg.

Form Supplied: Pint and gallon bottles.

Action: Relief of cough and bronchial congestion.

Administration: Adults: one to two teaspoonfuls every two to four hours. Children: one-half to one teaspoonful.

Source: Winthrop-Stearns Inc., New York 18, N. Y.

### THERA-VITA "WARNER"

Description: Multivitamin capsules, each containing: vitamin A, 12,500 units; thiamine hydrochloride, 10 mg.; riboflavin, 10 mg.; niacinamide, 100 mg.; pyridoxine hydrochloride, 1 mg.; Panthenol, 10 mg.; ascorbic acid, 150 mg.; and activated crgosterol, 1250 units.

Form Supplied: Bottles containing 25, 100, and 1000 capsules.

Action: Indicated for intensive therapy in vitamin depletions or deficiencies.

Administration: One to three capsules daily. Source: William R. Warner, St. Louis, Mo.

### TYLOSTERONE

Description: Tablets, each containing 0.25 mg. of dicthylstilbestrol and 5 mg. of methyltestosterone. Form Supplied: Bottles of 30 and 100 tablets.

Action: Treatment of menopausal symptoms.

Administration: Initial dose is one tablet daily. Two tablets daily may be given for a week or two, but should not be exceeded or continued over a longer period.

Source: Eli Lilly and Company, Indianapolis 6, Ind.

## TYROLARIS ANTIBIOTIC SOLUTION

Description: A spicy-flavored solution containing 0.02 per cent tyrothricin, 0.02 per cent d-panthenol and a surface active agent in a 10 per cent alcohol base.

Form Supplied: Eight-ounce bottles.

Action: Said to remove debris and film from tooth crevices and to combat certain bacteria responsible for tooth decay.

Administration: As a mouthwash or spray, full strength at one-balf to 2-bour intervals.

Source: Sharp & Dohme, Inc., Philadelphia, Pa.

### VI-LITRON THERAPEUTIC

Description: Capsules, each containing: vitamin  $B_{12}$ , 10 micrograms; folic acid, 1.0 mg.; liver concentrate, 300 mg.; ferrous sulfate, 195 mg.; ascorbic acid, 50 mg.; thiamine hydrochloride, 2 mg.; riboflavin, 2 mg.; niacinamide, 10 mg.; pyridoxine hydrochloride, 0.5 mg.; and d-calcium pantothenate, 1 mg.

Form Supplied: Bottles of 50, 100, 200, and 500 capsules.

Action: In treatment of pernicious anemia, macrocytic anemias, secondary hypochromic anemias, and mixed macrocytic-microcytic anemias.

Administration: One to six capsules daily immediately after meals or as directed by physician.

Source: U. S. Vitamin Corp., New York 17, N.Y.

### Other New Products

(Chemicals, clinical trial drugs, diagnosticals, and equipment)

### Acetovanillone

Acetovanillone (3 - methoxy - 4 - hydroxyacetophenone) is now available in pilot plant quantities.

Possibilities for its use as an intermediate in the synthesis of pharmaceuticals, food preservatives, fungicides, antioxidants, and other organic compounds are indicated. Acetovanillone's high absorption of ultraviolet light up to 3050 Angstrom units suggests its possible use as a sunscreening agent.

Manufactured by: Marathon Corporation, Chemical Division, Rothschild, Wis,

### New 5-Oz. Dispenser for "pHisohex"

A new 5-ounce polyethylene squeeze bottle dispenser with double closure for pHisoderm with Hexachlorophene 3 per cent ("pHisohex")\* has been added to the line by Winthrop-Steams Inc.

The product was designed especially to fit in visiting nurses' bags, however, it will shortly be made available as a commercial item. The 3-ounce glass container is also being continued. The new packing has a phenolic plastic cap and base encasing a corrugated glass cylinder. The latter being activated by a neophrene diaphragm.

pHisoderm with Hexachlorophene 3 per cent ("pHisohex") was developed primarily as a preoperative preparation for the operating team and patient.

Manufactured by: Winthrop-Steams Inc., New York 18, N. Y.

<sup>\*</sup> See THIS JOURNAL, 10, 581(1949).



# Cortone®



# Saline Suspension of Cortone Acetate

(1 cc. = 25 mg.) vials, 20 cc.

Tablets-

CORTONE Acetate

(25 mg. cach) bottles, 40 tablets

Clinical studies have demonstrated that the therapeutic activity of Cortone\* is similar whether administered parenterally or orally. Dosage requirements are approximately the same, and the two routes of administration may be used interchangeably or additively at any time during treatment.

Although the manufacture of Cortone—probably the most intricate and lengthy synthesis ever undertaken—has imposed unprecedented difficulties, every effort is being made to increase production and, in the meantime, to achieve an equitable national distribution of this vital drug.

Literature on Request

Among the conditions in which Cortone has produced striking clinical improvement are:

Key to a New Era in Medical Science

Cortone

(CORTISONE Acctate Merck)

(11-Dehydro-17-hydroxycorticosterone-21-acetate)

RHEUMATOID ARTHRITIS and Related

Rheumatic Diseases

ALLERGIC DISORDERS, including Bronchial Asthma

INFLAMMATORY EYE DISEASES

ACUTE RHEUMATIC FEVER

SKIN DISORDERS, notably Atopic Dermatitis, Psoriasis, Exfoliative Dermatitis, including cases secondary to drug reactions, and Pemphigus

LUPUS ERYTHEMATOSUS (Early)

ADDISON'S DISEASE

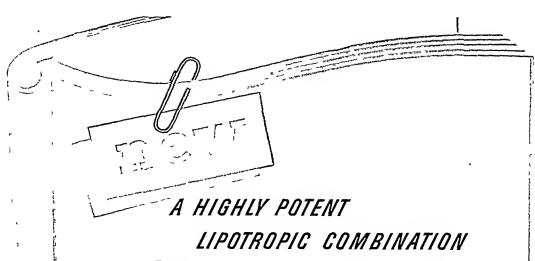
\*CORTONE is the registered trade-mark of Merck & Co., Inc. for its brand of cortisone.



MERCK & CO., INC.

Manufacturing Chemists

RAHWAY, NEW JERSEY



Solution

# SIRNOSITOL

CHOLINE AND INOSITOL

With Solution Sirnositol, lipotropic therapy can be put on a sound basis This new lipotropic combination permits adequate dosage to be administered, enhancing the efficacy of therapy.

(15 cc.) of Sirnositol contains 7.41 Gm. of choline gluconate (equivalent to 3.0 Gm. of choline base) and 0.75 Gm. of inositol. This quantity given three times daily provides a good dosage of each active ingredient.

**PALATABLE.** The choline gluconatc and inositol have been dissolved in a pleasantly flavored, sugar-free, aqueous vehicle.

AVAILABILITY
Solution Sirnosital
is supplied in 1 pint
bottles Your
wholes aler is
stocked; order
your supplies now.

WIDELY USEFUL. Solution Sirnositol is indicated whenever lipotropic therapy is required—in many hepatic derangements, atherosclerosis, and prophylactically in coronary sclerosis.

C.S.C. Pharmaceuticals a division of commercial solvents corporation, 17 E. 42nd St., N.Y. 17

# The Art of COMPOUNDING



NEW 8th EDITION

SCOVILLE'S
The Art of Compounding

19 Tables—515 Pages \$7.50

A book you will wont to keep handy as a counter guide. Look at these practical aids—

every class of preparation discussed in detail

 two-fold presentation—basic principles and actual compounding technics

 much new practical material added to every chapter

 chapters on incompatibilities revised and enlarged

 new chapters on solutions for special purposes and allergenic solutions

 practical, usable tables, formulae, illustrations

• up-to-date list of trade name preparations

# The Blakiston Company

1012 Walnut Street Philadelphia 5, Pa.

### A MONEY MAKER FOR YOU

# An up-to-date, practical guide to dispensing . . . How to prepare all types of powders, capsules, pills, tablets, ointments and solutions.

As necessary to daily practice as the mortar and pestle . . . a practical "how-to-do-it" guide containing new material designed to aid the dispensing pharmacist.

Every class of preparation encountered in the practice of pharmacy is discussed in detail. The actual compounding technics are presented in a simple and concise manner from the relatively simple to the most difficult preparations.

Much new material added . . . chapters on incompatibilities include specific information for quick reference—new chapters on solutions for special purposes—allergenic solutions included.

The tables, formulae, illustrations and list of trade name preparations make this book a real help on the prescription counter.

### CONTENTS

Nomenclature and Vocabulary Powders, Capsules and Effervescent Salts Pills Fablets Lozenges and Similar Preparations Simple, Compound and Stuck Solutions

The Prescription

Percentage, Saturated and Gascous Solutions
Adjusted Solutions
Parenteral Solutions
Solutions for Special
Application
Colloidal Solutions
Liquids Containing
Insoluble Substances
Emulsions
Ointments and Ointment
type Preparations

Suppositorics
Miscellaneous External
Preparations
Sterilization and
Disinfection
Homeopathic Pharmacy
Therapeutic and Physical
Incompatibilities
Chemical Incompatibilities
Organic Substances

The authors are practical men who know your problem

GLENN L. JENKINS, outstanding teacher and writer, Past President of A.Ph.A., Dean and Professor of Pharmaceutical Chemistry, Purdue University, School of Pharmacy.

DON E. FRANCKE, Chief Pharmacist, University Hospital, University of Michigan, President-elect of A.Ph.A., and member of U.S.P. Revision Committee.

EDWARD A. BRECHT, worked in his father's drug store at the age of 7, later spent several years as a practicing pharmacist, is now Dean and Professor of Pharmacy, University of North Carolina, School of Pharmacy.

GLEN J. SPERANDIO, with over 15 years' experience in retail pharmacy and prescription stores, and as a pharmaceutical chemist and a manufacturing pharmacist, is now Assistant Professor of Pharmacy in charge of dis-

pensing pharmacy, cosmetics and hospital pharmacy, Purdue University, School of Pharmacy.

THE BLAKISTON CO., 1012 Walnut St., Phila. 5, Pa. (105 Band St., Toronta 2, Canada)

Please send me a copy of the NEW 8th Edition of Scaville's THE ART OF COMPOUNDING. I understand that if I am not completely satisfied, I may return the book and you will refund my money immediately.

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# New a.Ph.a. Member



THE ASSOCIATION EXTENDS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP DURING THE MONTH PRECEDING PREPARATION OF THIS ISSUE.

NEW LIFE MEMBLES

Alotta, Peter J, Cooperstown, N Y
Hamayan, Hmayak H
Baghdad Iraq
king, Joseph G, Chattanooga Tenn
Lewis Charles H, Scattle, W ash McGinity, F Rowland, Baltimore Md Werss Garcon Cleveland.

### ALABAMA

Ginimitelli Dora Mobile Lyman B Tuskegee

### ARIZONA

Matthias William C. Tucson CALIFORNIA

Frank J Hiskey Long Beach Humerick, George D, Los Angeles
Johnson Lewis E Los Angeles Mazzone, Walter F, San

Outland, Guy C., Modesto
Petersen Robert L., Glendale
Sinclair, Isabella N., Los
Angeles

Zebrack, Sylvin Los Angeles CONNECTICUT

Sienko, Vivian L., Bridgeport DISTRICT OF COLUMBIA

Clayton, Lt Col Rex P MSC, Washington Furr, Edward B, Washing-

### FLORIDA

Fussell, Goette O, Clearwater Work, Burton N , Lakeland,

GEORGIA. Horali Hugh O , Jr , Savan-

**ILLINOIS** Olcott frwm Chengo

INDIANA

Brown LeRoy, Indianapolis Hansell, Dan N. Remington Hicks Matte A. B., Gary Kaufmin Gerald, Gary McCrory, William C., Jr., Indianapolis Waltz, Melvin, Fort Wayne

KENTUCKY

Newball, Bertram A., Louisville

Whitehead, Eleanor J., Loms Zegart, Harry, Louisville

### LOUISIANA

Dubourg, John J, New Orleans

#### MAINE

Inrgeon, Adolph, Lewiston,

### MARVIAND

Cooper, Franklin D, Baltimore Fedder, Donald O. Balti-Levin, Leon P , Towson

### MASSACHUSETTS

Osheroff, Boris J Brighton Pickering, John W, Somerville

### MICHIGAN

Bateson Malcolm W, De Bohrm William, Detroit Carrigan, Richard H., Grosse Pointe Farms Furbur, Wallace R Rochester Hall, Annie M., Detroit Lemanske, Walter M

troit Miller, Gerald K, Ann Arbor Shedd, John G, Tekonsha

### MINNESOTA

Amberg Ray, Minneapolis MONTANA

Price, Merwin J , Laurel

### NEBRASKA

Merrick, Clny C , Allrance Thompson, Euterpe L , Cliad

### NEW JERSEY

Goldy. Thomas P, Mt Holly ess, Duanc C, Collings-

Hess, I 11orowitz, Murray, Ehrabeth Jackson, Raymond, Wood-bridge

Kleinhans Hugo L, Newark Levine, Hnrold, Palisades

Park Lielitenstein, Morris, Springfield

Mazlish, Abraham, Bayonne Mazlish David J., Jersey City
Resnick, Jacob, Woodbury
Seager, J Walter, Cronford
Silk, Harvey A Trenton
Willshy, Max, Newark
Wollish, Ernest G, Bloom-

### NEW MEXICO

field

Deskin, Norris C, Albuquerque

### NLW YORK

Avstreili, Albert B. Nyack Cotanelie James G. Sodus Donovan, James A. Ken morc Gunsberg, Ephraim,

York Knpclowitz, Michael, Brook-Lewson Herbert II, Forest

Marcus Alex, Brooklyn Martin Sidney, New York Rosovsky, Hyman J., Brook-

lyn Seifert, Samuel M., Brewster Silkes, Charles, New York Wolfson, Joseph, New York

NORTH CAROLINA Shore, Vollie A , Jr , Oxford

NORTH DAKOTA

Vaaler, Raymond A, Grand Forks

### OHIO

Bartselier, Harold E, Lin cmaati DiPasquile Patsey M, Am stordam Myron, Shaker Heights

I crry, H Suc, Columbus

OKLMIOMA Smith, James T Enid

### OREĞON

Redding, Jeanette S, Portland

### PENNSY LVANIA

Berenbaum, Jack, Plul idel phia Cook, Harold J , Kingston Corbett, Raymond C, Home-stead Park

Freeauf, Edward J , Conneaut Lake Howell, Kenneth O, Phila-

delplua Karsh, Abram P, Philadelplua Krasneski, Harry J., Eric Slierman, Daniel, Reading Sluitz, Roger II, York Tate, Elizabetli A., Sayre

SOUTH CAROLINA

### Burgess, James N. New-

berry TENNESSLE Bond, Robert W., Nashville Hartman, Barbara L., Nash-

kendall, Willram E Meino Leary, Vincent C, Mem-

րևոց Walden, Thomas L. Belleview

### TEX 15

Disl, Charles M., Dallis Merrick, Edwin L., Jr., Fort Worth

Newman, Harry E, San Antomo

### VIRGINIA

O Brun, James II, Jr, Cluse City

### WASHINGTON

Gnodwin, Allan T. Camus Richburg, Thomas E, Ephrata

### WISCONSIN

Blast, Leonard, Milwankee Mackey, Clarence, Jr, Mil-waukee Mueller, John II, Madison

### FOREIGN

Bengoeelica Dr Jose del Carmen, Managua, Nicaragua Dr Catanzaro, Tom 18. Lima, Peru amboa, Zenon, Camboa, Zenon, Cocha-bumba, Bohvia Paure, Luc M SC, Montreal, Que, Canada Villanueva, Eugenio, Mexico



### Deceased Members

Boomn, Samuel, Llkins Park, Pa Sister Enterenziana Call,

Chicago, Ill, Jan 2,

1951
Dmiddson, Thomas, Wilmington, Del
Ulson, John Ross, Enka,
N. C. Dec 13, 1950
Graffin, Jess, Minneapolis,
Minn, 1950
Krais, Alexander, Brooklyn, N. Y.
Martens, Heinrich, Sheboyg in Wis, Dec,
1950

boyg in 1950

1950 Ne ilon, Daniel I., Paris, Tenn. Jan. 27. 1951 Schmidt. Carl. A., Day-ton, Olno, April 17, 1950 Schunielling. 11. G. Cin-cinnati, Olno, Aug. 19, 1950

1950

Terry, Robert W., Co-lumbus, Ohio, Jan 17,

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## a superior, highly palatable sedative-antispasmodic

# elixir 'ESKAPHEN B with BELLADONNA'

Elixir 'Eskaphen B with Belladonna' combines, in a light and delightfully flavored elixir:

- 1. All the natural alkaloids of the time-proved antispasmodic: belladonna . . . to combat spasm.
- 2. The mild, ealming sedative: plicnobarbital... to relieve nervous tension.
- 3. Full therapeutic dosage of the virtually specific nutrient and restorative: thiamine . . . to help rectify dietary deficiencies.

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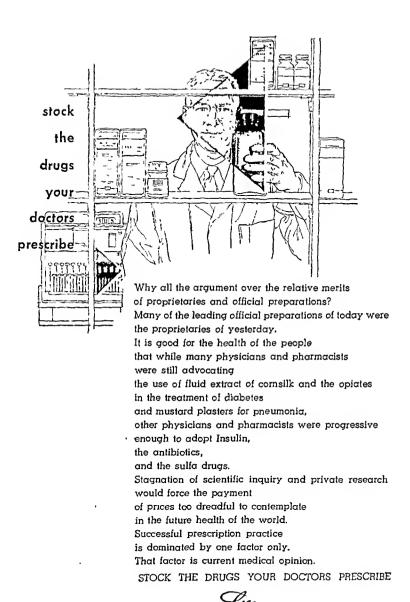
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# Yournal of the

# **AMERICAN** PHARMACEUTICAL ASSOCIATION



VOL. XII, NO. 3 CONSECUTIVE NO. 5

# Practical Pharmacy Edition

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### THE COVER

The Pharmacist has supported innumerable public health drives, but none deserves his attention more than the Cancer Crusade, beginning April 1.

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# STRAIGHT FROM HEADQUARTERS



# By ROBERT P. FISCHELIS, Sceretary AMERICAN PHARMACEUTICAL ASSOCIATION

### F. D. A. Needs High Level Pharmacist Administrator

Independent of the final outcome of the discussions with reference to provisions of the Food, Drug and Cosmetic Act regarding prescription filling and refilling, it is quite clear that one of the important needs of the Food and Drug Administration is the inclusion in its top administrative staff of an administrator with a pharmacy background.

The Food and Drug Administration at present has a commissioner, an associate commissioner and an assistant commissioner, who deal with various administrative functions arising under the Act, and there are department heads for medicine, chemistry, pharmacology, bacteriology and other specialties. Nowhere in the upper administrative strata of the Food and Drug Administration is there a pharmacist or an individual with a background of actual experience in pharmacy, either manufacturing, control, dispensing or distribution.

This situation accounts, in a very large measure, for the failure of the Commissioner of Food and Drugs and his associates to give adequate advice to the Federal Security Administrator on the issuance of regulations dealing with the production and distribution of drugs.

When this situation has been referred to publicly, it has been met with the argument that somewhere down the line in the Food and Drug Administration there are graduates of colleges of pharmacy engaged in inspection work or in review of laboratory findings and reports of inspections. None of these individuals is sufficiently well known in the drug industry to have made any great impression upon the pharmacists of the United States, or upon the drug industry, either before their entry into the work of the Food and Drug Administration, or subsequent to their activity there. None of the official spokesmen of the administration, as far as we know, has had any formal education in pharmacy.

There are in American pharmacy competent individuals with undergraduate as well as graduate training and degrees and an intimate knowledge of the structure and procedures of the profession of pharmacy, so that there is no dearth of material from which to select competent personnel in the grade of commissioner, associate commissioner or assistant commissioner.

Whether the prescription filling and refilling discussion is settled by an adequate regulation or by a change in the law, there must be recognition of the fact that a very large part of the work of the Food and Drug Administration deals with drugs and therefore it is essential that personnel trained in drugs shall be appointed in sufficiently high places in the Administration's staff to carry some weight in the development of regulations and policies with respect to law enforcement.

If this need is supplied, there is no reason why such unfortunate situations as have developed through immature pronouncements of the present commissioner with respect to the practice of pharmacy and the practice of medicine cannot be avoided in the future.

### Advice to Pharmacy Students

It is natural for male eollege students everywhere to be concerned about the completion of their education.

As this is written, the Scnatc of the United States has approved legislation to bring about universal military service and training. It has also approved drafting eighteen-year-old men for military service. Furthermore, it has approved the idea of making special provisions for the education of not more than 75,000 men of superior ability in the sciences and the professions. Presumably there would be some students in such a group who would select pharmaey as their major objective. This number is in addition to those who are draft exempt or deferred for physical and other reasons.

The House of Representatives also has this legislation under discussion. Its Committee on the Armed Services indicates that it may not concur in the senate's proposal as to the 75,000 or the drafting of eighteen-year-olds, except under unusual circumstances, and that it may not approve universal military service and training.

Therefore, the final action of the Congress on this vital matter will be determined in conference between committees of the House and the Senate after the House Bill has been passed.

Without doubt, the law on this subject will depend greatly on the international situation at the time final action is taken, and this is not looked for until the early part of the summer.

Pharmacy students, along with others, will therefore be able to complete the current academic year without the possibility of being drafted, and seniors now at college should be able to receive their degrees before they are called for military duty.

Unless the international situation worsens abruptly, most junior, sophomore and freshman students now enrolled and maintaining satisfactory class standing can also expect to be permitted to complete courses in which they are currently enrolled. It is quite likely that arrangements can be made for

them to complete their education and receive their degrees provided, of eourse, they maintain satisfactory class standing. Everything depends upon how badly the armed forces need men. Hence there is some uncertainty.

THE AMERICAN PHARMACEUTICAL ASSOCIATION, in common with other scientific and professional societies, has made it elear to the Department of Defense, the Selective Service, the National Security Resources Board and to the Congress that maintenance of adequate pharmaceutical service for the people of the United States will require a continuing supply of pharmacists, if the public health is to be properly conserved and maintained.

We have reason to believe that wherever decisions are going to be made with respect to students in the sciences and the professions the importance of an adequate supply of pharmacy students is recognized.

We are quite convinced that no pharmacist or pharmacy student desires to escape making his contribution to the survival of the principles to which the United States of America is dedicated.

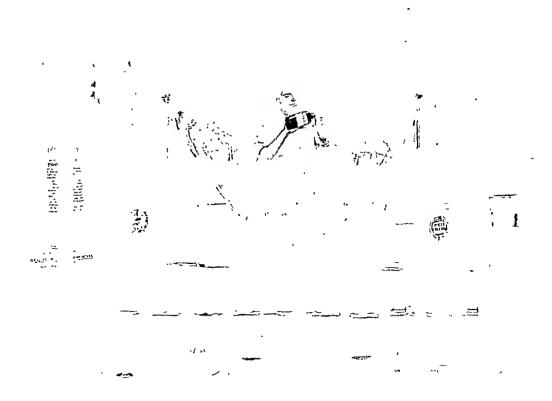
The only question that confronts pharmacy students is one of determining when and where their services can be of greatest use to the nation.

The plain answer to this question is that any pharmacy student who has already successfully completed a part of his professional course will normally be of greater value, both as a civilian and as a member of the armed forces, if he completes his education entirely. The size of the army, navy and air force will determine to what extent a graduate pharmacist will be assigned professional duties in line with his training and whether this will be in commissioned or non-commissioned rank.

Unless a pharmacy student now in college wants to be associated immediately with a combat unit in the army, the navy or the air force, he should concentrate on completing his course. In times of national emergency all of us must endeavor to be of as much service as possible to the cause our country has espoused. The place of the pharmacy student in the current emergency would seem to be in the classrooms and laboratories where he can acquire the training to serve most efficiently when his time to serve his country arrives.

# 1950 Pharmach Week

## **EXCEEDS PAST RECORDS**



Wood's Drugstore, Hopkinsville, Ky., won first prize with this effective window

The 1950 observance of National Pharmacy Weck was one of the most successful since its inauguration 25 years ago. The completed report, presented to the Committee on Public Relations late in February, showed clearly that the 1950 Week was observed with increased interest and enthusiasm by associations, colleges, and retail pharmacists. In every category of activity, 1950 broke all records.

Major stimulus to the week came from local and county pharmaceutical associations, who carried the message of pharmacy directly to radio stations, public officials, and others who supported the program. York, Pa., for example, was solidly behind observance of the Week. Under the leadership of L. E. F. Minnich and Glenn M. Coover, president of the York County Pharmaceutical Association, every drugstore in the county featured special pharmacy week windows. The mayor of York, as well as the



burgesses of three surrounding towns all issued proclamations in behalf of Pharmacy and Pharmacy Week. As a result of this combined effort on the part of all the pharmacists in the area, they are continuing to join together to support other national weeks allied to Pharmacy.

The York experience, however, cannot be singled out as the only major city activity in the country. Many other counties and cities were extremely active. In Tucson, Ariz., twenty of the city's service clubs heard addresses by local pharmacists. This eight-man speaking committee, in the brief space of Pharmacy Week, carried the story of the profession directly to the Tucson's business leaders. The result was that the important role of Pharmacy to public health was instantly recognized by the vast majority of the city's residents.

The records are equally fine among colleges and pharmacy college student branches of the A. Ph. A. Rutgers University College of Pharmacy won the first prize in the window display competition for this classification, with the University of Utah College of Pharmacy, Salt Lake City and the Univ. of Kansas College of Pharmacy, taking the two Certificates of Merit. In all, twenty-four colleges submitted photographs to the judging committee.

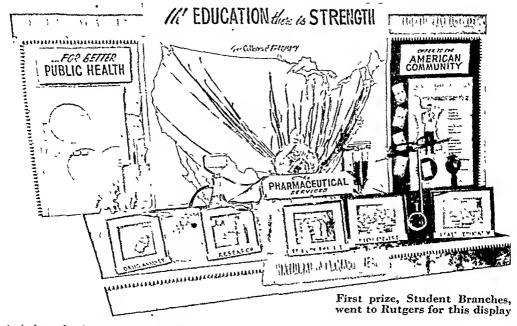
### State Activity

Association activity throughout the country lit an all-time high of enthusiasm, with Texas being



### Pharmacy Week Participation

- Window display posters, were seen in 18,412 drugstores, banks, and colleges.
- More than 3,500,000 folders, "Heart Quiz," were distributed to the public.
- Special speeches, dramatic playlets, advertising mats, 'and radio scripts prepared by the A. Ph. A. were sent to 3,443 individuals and organizations.
- More than 100 governors and mayors issued special proclamations concerning the Week and the health role of pharmacy.
- "The Prescription That Shook the World" and other 15-minute dramatic plays prepared by the A. Ph. A. were presented over more than 25 radio stations.
- Television cameras for major networks recorded the opening of the reconstructed Pasteur-Galt Apothecary Shop in Williamsburg, Va., marking the official start of the Wcck.
- One radio station, typical of the more than 85 which ran programs, devoted 50 spot announcements, two fiveminute programs, and one 15-minute program to Pharmacy and Pharmacy Weck.
- Twenty-four student branches of A.
   Ph. A. had special activities, including transcribed radio programs, window displays, and meetings.
- More banks and other non-pharmaceutical institutions had special windows than ever before in Pharmacy Week's twenty-five year history.



particularly active in support of the Week. More than 200 Texas newspapers ran a story and photograph of Association President Lester Short and Governor Allen Shivers, who had issued a special proclamation for Pharmacy Week. Under the Icadership of Association Secretary C. J. M. Roesch, radio stations all over the state devoted programs to the week. Austin stations, particularly, presented dramatic sketches, spot announcements, and interview programs for the entire week. To develop interest in the display contest, the Association also set aside funds for cash prizes for the best windows in the state. In addition to the possibility of winning one of the national awards, Texas pharmacists, therefore, had a chance to win \$50, \$30, or \$20 for displays in their home state.

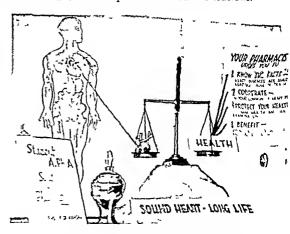
Oklahoma also set aside prize money for displays in that state. Here, two divisions were made, for towns of over 10,000 and towns of under 10,000. Top prize for both was \$35, with the second prize for larger cities being \$15, and for smaller cities, a case of prescription bottles.

### The National Winners

The competition for retail drug stores was extremely active for the 1950 Week. First prize of a plaque and \$100 went to Wood's Drugstore of Hopkinsville, Ky., for an imaginative window based on the books and equipment of the pharmacist and the international aspects of his profession. Certificates of Merit were awarded to Fayette Drug Company, Baltimore; Garden Pharmacy, Newport News, Va.; Griffith Owl Drug Store, Henryetta, Okla.; Peoples Service Store, East Liverpool, Ohio: and the Statler Pharmacy, Boston, in recognition of the excellent displays installed in these stores. It is interesting to note that large and small towns, dotted all over the country, are represented among these

winners—proof of the fact that observance of the Week was truly a national movement.

The display installed in two windows of the Atlantic City Light and Power Company, sponsored by the Atlantic County, N. J., Pharmaceutical Association, won the top award in the competition for windows installed in non-pharmaceutical institutions.



Kansas University won Certificate of Merit for this window display

### The Williamsburg Opening

Much of the enthusiasm generated by Pharmacy Week in 1950 stemmed from the celebration of the opening of the reconstructed Pasteur-Galt Apotheeary in Williamsburg, Va. This event marked the official opening of Pharmacy Week, and due to television, radio, and newspaper reporting, gave the Week national significance not enjoyed in previous years. The opening of the famous old pharmacy was preceded by a luncheon at the Williamsburg

### PRACTICAL PHARMACY EDITION

Inn, at which the American Pharmaceutical Association was host. More than 100 students of the College of Pharmaey of the Medical College of Virginia, faculty members of the school, and 50 members of the Virginia Pharmaceutical Association attended. Following the luncheon, Dr. Tom D. Rowe, chairman of the Public Relations Committee of the A. Ph A, read a proclamation announcing the beginning of National Pharmaey Week. At that point, television and news cameras recorded the opening of the pharmaey. It will stand as a permanent memorial to the heritage, and historical im-

How far this planning went can be seen simply by looking at the files marked "Pharmaey Week, 1950" in the offices of the A. Ph. A. Many letters of inquiry are dated as early as February, showing that eight months before the actual Week, association leaders were already beginning to create interest among their memberships.

Many student branch meetings held in late spring and early Summer also featured discussions of pharmacy Week participation. Since a successful Week depends on greatly diversified activity and cooperative effort, planning must come early.

### Atlantic City Light and Power Co. installed displays in each of its two large windows

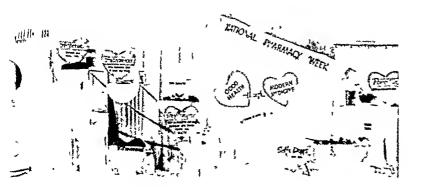


portance of Pharmaey among the other buildings of Williamsburg. The complete story of the Williamsburg celebration appeared in the November issue of Tens JOURNAL.

Despite the impact of the Williamsburg celebration, 1950's Pharmacy Week could not possibly have succeeded without months of planning on the part of thousands of pharmacists throughout the country

### Looking Ahead

Pharmaey Week, 1951, will be observed during the last full week in October, the 21st through the 27th. New radio programs, speeches, and other material are now in preparation, and pharmaeists everywhere should start planning for their participation this fall



One of the five Certificates of Merit for retail pharmacies went to Garden Pharmacy, Newport News, Va., for this fine display

# Minimum Standards for Hospital Pharmacies Receive Approval

The long and tedious efforts of the Division of Hospital Pharmacy of the American Pharmaceutical Association, aided by individual efforts of members of the American Society of Hospital Pharmacists and its Committee on Minimum Standards for Pharmacies and Hospitals, as well as the cooperation of the American Hospital Association and the Catholic Hospital Association, have borne fruit in the establishment of a set of standards which have commended themselves to hospital administrators and others concerned with the development of pharmacy services in hospitals.

In this connection, the following editorial comment which appeared in the February 24 issue of the Journal of the American Medical Association is of interest:

"The object of hospital standardization, in all its phases, is to promote the care and welfare of the sick and to give to patients the full benefits of modern medical and hospital service. It is with this aim, also, that the American Pharmaceutical Association and the American Society of Hospital Pharmacists have recently prepared a minimum standard for hospital pharmacies, recognizing that better organization, planning and facilities will be necessary to permit them to keep pace with the many discoveries and advances that are now prominently associated with application of drug therapy.

"As stated by the sponsoring agencies, the development of the present standard is not an attempt to cast all hospital pharmacies into a single mold, for it is well recognized that each hospital must necessarily vary its methods, space and facilities to meet the needs of its own patients. Through these efforts, however, 'there has been evolved a standard which, when properly interpreted in the light of the requirements of individual organizations, may serve as a set of fundamental principles on which to build more efficient and effective pharmaceutical service to hospitals.'

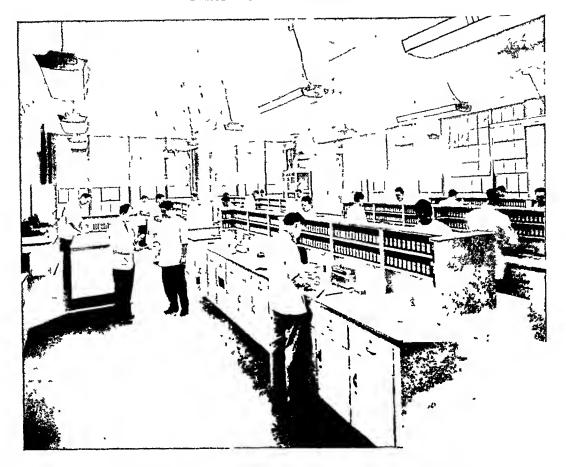
"The minimum standard has been carefully planned. It consists of six major divisions dealing with organization, policies, personnel, facilities, responsibilities and the Pharmacy and Therapeutics Committee. The organizational section emphasizes the importance of establishing the department under the direction of a professionally competent and legally qualified pharmacist. Formulation of policies is considered a joint responsibility of the pharmacist, the hospital administrator and the Pharmacy and Therapeutics Committee. The section on personnel concerns the educational qualifications of the pharmacist in charge as well as the additional personnel that may be required for de-

partmental operations. Facilities include such items as adequate space for all departmental activities, refrigeration, storage of narcotics and other pharmaceuticals, bookkeeping, library and filing equipment. Specific information is given with respect to the duties and responsibilities of the hospital pharmacist. These include the preparation and sterilization of injectable medication when manufactured in the hospital, manufacture and dispensing of drugs and pharmaceutical preparations, filling and labeling of drug containers, inspection of pharmaceuticals on all services, maintenance of approved antidotes and other emergency drugs, dispensing of narcotics and alcohol, maintenance of inventories, establishment of controls and specifications for the purchase of drugs, cooperation in educational activities, formulation of policies in accordance with hospital regulations. maintenance of records and preparation of required reports. The organization of the Pharmacy and Therapeutics Committee is described, as well as its functions in the formulation of policies, the development and revision of formularies of accepted drugs and the evaluation of clinical data pertaining to drugs and pharmaceuticals requested for hospital use.

"As a further aid in the application of these requirements, the American Pharmaceutical Association and the American Society of Hospital Pharmacists bave officially approved the suggested plans for hospital pharmacies prepared by the United States Public Health Scrvice with respect to 50-, 100- and 200-bed general hospitals. The detailed information supplied in the minimum standard as well as the suggested plans for hospitals of varying size will be found extremely helpful as organizational guides for all institutions seeking to develop a new hospital pharmacy or extend the work of an existing department."

Pharmacists who are members of hospital boards of directors, or who are consultants to hospital staffs in their communities, as well as those pharmacists who are actively engaged in the practice of pharmacy in hospitals, will do well to become thoroughly familiar with the minimum standards which have been promulgated and which have the approval of the American Pharmaceutical Association, the American Society of Hospital Pharmacists, as well as hospital and medical associations.

In communities where new hospital facilities are being developed, pharmacists will find it of special interest to have available these minimum standards as well as the suggested floor plans for hospital pharmacies.



# Pharmacy Colleges and Their Equipment St. Louis Installs New Laboratory

and Allied Sciences placed into operation a new Dispensing Laboratory. Exceptionally well designed and lighted, it affords hoth students and faculty an ideal room for the completion of special research, as well as daily instruction

The laboratory measures  $40 \times 50$  feet, and features 20 working units, measuring 8 feet each In addition, a large table  $5 \times 12$  feet is available for special work. The white, wood units are covered with formica tops for ease of cleaning. Special waste receptacles have also been incorporated in each unit to further insure cleanliness and ease of operation.

Storage space, constantly a problem in many dispensing laboratories, has been solved by the installation of a 28-foot, glass-enclosed wall cabinet Here, trade-named prescription products are kept on 100 running feet of shelving. Beneath these cabinets is a base of 10 large storage compartments and 32

drawers for equipment and other pharmaceutical materials. Six Schwartz sections provide additional storage facilities.

Eight sinks are in the center of the room, in two units of four each. Equipped with modern attachments for ease and speed of use, these are within easy reach of all four corners of the laboratory.

Other equipment in this brightly lighted, well-ventilated room includes four typewriters for label typing, two conveniently located reference hhraries, asphalt tile flooring, inter-office telephones, and fluorescent lighting.

An elevated area at one side of the lahoratory affords the instructor a full view of the entire room. In addition, the working units are sufficiently low to provide equal dispersion of natural sunlight throughout most sections of the 2000 sq. ft. housing the lab New hlinds on the extremely wide windows permit easy control of strong sunlight, when necessary.

## NAVY SURGEON GENERAL PLANS NO PHARMACY POLICY CHANGES

In the following statement to the Secretary of the A. Ph. A., Admiral H. L. Pugh reaffirms the Navy's Pharmacy Program

In our development of an expanded pharmaceutical service we have been guided by those principles which were mutually determined in our discussions with organized pharmacy at the time legislation was enacted providing for commissioning pharmacists in the Navy.

At this writing most of our naval hospitals, major medical department activities and hospital ships include a pharmacy officer in their complement. In each case these officers have primary responsibility for the professional direction of the pharmacy, which we consider an important element in our medical services. I am sure you will be interested to know that these officers have accomplished very significant developments in our pharmaceutical service. Every Hospital Corps School includes on its teaching staff a pharmacy officer, thus improving the quality of instruction through the services of these professionally trained men. Other pharmacy officers are serving in the Naval Medical Research Institute, the Armed Forces Medical Procurement Agency, the Armed Services Medical Matériel and Specifications Committee, the Naval Medical School, the Naval Medical Matériel Board, the Bureau of Medicine and Surgery and in other similar professional posts. In all of these assignments pharmacy officers are rendering a valuable service to the Medical Department.

We have placed pharmacy officers in graduate training in civilian institutions and in special Navy courses to broaden their background for particular assignments. In utilizing pharmacy officers we have followed the pattern of our original understanding by assigning them to professional and technical duties where they should find the greatest personal satisfaction and, at the same time, contribute to their maximum capacity for the benefit of the Mcdical Department.

As of this date we have a considerable and nearly adequate body of reserve pharmacy officers available for active duty if and when their services are needed. We have practically filled the present allowance for pharmacy officers of the Regular Navy under its current authorized strength. If the Regular Navy is further expanded there will then be additional vacancies for Regular Navy pharmacy officers.

There has been a gratifying response from reserve pharmacy officers in volunteering for active duty. While it is not possible to reveal the numbers of officers currently on duty, you will be interested to know that we now have on duty, in appropriate balance, a substantial group of



Rear Adm. H. L. Pugh was appointed Surgeon General of the Navy to succeed Adm. C. A. Swanson, who assumed command of the National Navy Medical Center at Bethesda, Md., last month.

Born in Batesville, Va., February 5, 1895, Admiral Pugh served in the Marine Corps in World War I, and in 1923 he received his medical degree from the University of Virginia. That same year, he entered the Naval Medical Corps as Lieutenant, Junior Grade.

He was certified by the American Board of Surgery in 1940, and later served as Chief of the Surgical Service, Naval Medical Center, Bethesda, Md. He was appointed Assistant Chief of the Bureau of Medicine and Surgery and Deputy Surgeon General in December, 1946, where he served until his present assignment.

Regular Navy and Naval Reserve pharmacy

Several months ago it was necessary to temporarily discontinue acceptance of applications for new commissions in the Medical Service Corps of the Naval Reserve. Within a short time we hope to be able to receive these applications again. With the anticipated numbers of such newly commissioned officers and our current pool of reserve pharmacy officers, I believe that this phase of the personnel problem of the Medical Department will be well in hand.

The occasion for this letter provides an opportunity to express my appreciation to organized pharmacy for the splendid cooperation tendered to the Medical Department. Under the immediate direction of Commander W. Paul Briggs we feel that mutually satisfying progress has been made in the utilization of pharmacy officers and in the professional development of pharmacy services in the Navy.

Vol. XII, No. 3

# Radiological Defense

By William H. Sullivan,

Director of the Naval Radiological Defense Laboratory, San Francisco Naval Shipyard

In order to maintain a proper perspective in discussions concerning radiological defense, it should be pointed out that only 15 per cent of the fatalities at Hiroshima and Nagasaki were caused by nuclear radiation. The rest were due to direct and indirect blast effects and to flash and thermal radiation effects.

However, both bombs used over Japan were air bursts. In the case of a surface or subsurface burst, a much higher percentage of the casualties will be caused by nuclear radiation.

### Four Kinds of Hazardous Radiation

The hazardous radiation from an atomic bomb may be classified into four types: prompt, delayed, residual, and induced. In the air burst, the delayed gamma radiation, due to the short-lived fission products in the rising ball of fire, is the most important. About 50 per cent of the total radiation is emitted in the first second; the remainder in approximately 1 minute. The prompt gamma rays, emitted during the fission process itself, constitute only a small part of the total initial damaging radiation. The residual activity and the induced activity (i.e., radioactivity produced by the neutrons from the bomb) contribute little to the total hazard.

In a surface or subsurface burst, whether underwater or underground, the residual and the induced radioactivity contribute practically all of whatever hazard may exist after the detonation. The prompt and the delayed gamma radiation are practically nonexistent.

### **Evaluative Procedures**

The evaluative measures of radiological defense are twofold. First, one must determine what hazards exist after the detonation; second, there must be practical procedures by which doctors can learn how much radiation persons received at the time of detonation. Too often, the radioactive contamination resulting from an underwater or underground burst is confused with the general phenomena of the air burst, with the result that too many people think in terms of serious radiation hazards, without con-



This photo, from the Department of Defense, shows the famous mushroom cloud of the Bikini tests. However, the huts shown in the foreground might well be houses along an American lake's shoreline. Mr. Sullivan's article, based on a recent address and remarks appearing in the U. S. Navy Engineering Corps Bulletin, points out sound defense measures.

sidering the type of burst. For example, there were no eases of damage to human beings from residual radioactivity at either Hiroshima or Nagasaki.

To get a complete picture of the area where one may expect casualties, one should also consider the

# Wacuate and wait!

The key to most civil defense problems in radiological decontamination may be found in the expression: evacuate and wait. Whereas the military forces may often have to perform operational decontamination for tactical reasons, such action is not warranted for civil defense problems except under unusual circumstances. The cost of such operations in time and manpower is too great.

rate of fall-off with distance of the casualty-producing phenomena. Curiously enough, the product of the population distribution and the casualty curves indicates that the largest number of heavily damaged casualties (those showing potential mortality) lies in the region about 1200 yards from the ground zero point.

Approaching a bomb-burst area from the outside, one will find that most casualties in the 3000-4000-yard annulus are caused by thermal radiation, with little gamma and neutron irradiation effects. Continuing on toward the center of the blast area, one will find the nature and causes of the casualties becoming more complicated, and not to be revealed by gross examination.

To the medical practitioner, the difference between blast and thermal effects will be obvious. However, not so obvious will be the extent of gamma radiation damage. If a personnel dosimeter (device for measuring radiation exposure) was worn by the victim at the time of the catastrophe, the doctor will have information upon which diagnosis and prognosis can be based.

However, if such measurements are not available, it will be necessary to bave clinical data concerning radiation exposure. At the present time there are several investigations under way to determine whether or not clinical procedures can be used in field operations. Results so far are interesting, but as yet demonstrate little practicability.

Although much experimental work has been done with film badges as personnel dosimcters, they are not very satisfactory for field use because they require film-developing facilities, and it takes a relatively long time to get results. There are two types of direct-reading, pencil-type dosimeters, but these are expensive, and it is not logical to assume that, even if an entire population were equipped with such devices, the people would wear them regularly. If only a part of the total population wore dosimeters, it would be possible to obtain enough information to plot isodore contour lines. However, this pro-

cedure would not be satisfactory for civil defense use because of the time required for collecting and collating the information into usable form.

Generally, then, public bealth officials will bave to rely upon well-trained medical practitioners and their aides for a sensible evaluation of casualties. No instruments, as presently conceived, are being developed which can serve as a "crystal ball" to those who bave the responsibility for implementing effective radiological defense measures.

### Reclamation and Restoration

When an underwater explosion is produced so that radioactive spray and mist drift across a city, the problem for radiological defense officials becomes much more difficult. The widespread contamination of buildings, streets, and homes by the radioactive water, whether from fall-out, spray, or "base surge," may lead to radiation fields of such intensity that personnel may not enter them without serious damage. Because of the costliness of widespread decontamination operations, it is recommended that time be used as the decontaminant. The bomb-produced radioactivity decays at such a rate that a short-time wait, if permissible, is more efficient than an elaborate decontamination operation.

A rough rule of thumb for gauging the decrease of intensity with time is as follows: If one has a given level of radiation 1 minute after the burst, then 12 minutes later the activity will be only 10 per cent of the initial level; 2 hours after the detonation, only 1 per cent of the original radioactivity will remain; 17 hours after the zero time, only one one-thousandth of the initial activity will be left; and 4½ days afterward, the radiation level will be only one tenthousandth of its original value.

### Food and Water Problems

A word might be said at this time concerning the reclamation of foods and the potability of water supplies. Fresh or unpackaged foods cannot be reclaimed. However, it should be possible to use foods which are enclosed in airtight and watertight containers—canned goods, for example. Some caution should be exercised in the case of cans or packaged foods which were at a distance of 500 yards or less from the zero point of the air burst, because of the possibility of induced radioactivity in the food itself. Generally, however, the radio-isotopes produced under these conditions would all be shortlived. The problem of induced activity in such foods is of no concern with either the underwater or underground bursts.

As far as contamination of water supplies is concerned, onc may say that, except under most unusual conditions, there is no real problem. Most urban water supplies are drawn from reservoirs located some distance from the center of the city. In the case of the air burst there is practically no contamination; hence the real problem will be the provision of adequate supplies of water. Disrupted

water mains and piping will create more problems concerning the potability of the water than any radioactive contamination.

In the case of the underwater or underground burst, one may draw similar conclusions. Undersea bursts are of little concern since the water supplies of any near-by city are not drawn from the sea. Also, it would be almost impossible to contaminate any appreciable amount of water in reservoirs or wells (infrequently found) in such a city. In the case of contamination of bodies of fresh water such as Lake Michigan (Chicago uses Lake Michigan water) the answer is to process the water through elaborate purification plants before using it for drinking purposes. In the case of the underground burst, the problem of the leaching of contaminated ground by rainfall, with subsequent contamination of underground water supplies, is present but relatively unimportant because the porous earth is an excellent absorbent for fission product activity

### **Prophylactic Measures**

Unfortunately, there is at present no practical way of administering prophylaxis against bomb radiation. Although it is experimentally known that intravenous administration of the important amino acid cysteine in a properly buffered solution immediately before radiation exposure will have some protective effect, the procedure is not adaptable to the handling of large groups of people.

It is also known that animals in a state of low oxygen tension are less affected by radiation than are those in a normal atmosphere. The only conceivable recommendation that could stem from this knowledge (if the experiments can be shown valid for humans), might be to hold their breath as long as possible after seeing the characteristic brilliant flash of light of an air burst.

### Therapeutic Measures

Therapeutic measures, an important part of radiological defense, are comprehensive in number and type. Perhaps this very fact indicates the magnitude of the problem involved when one must deal with casualties stemming from direct or indirect blast, thermal radiation, and neutron and gamma radiation.

Because a detailed discussion of this subject is more appropriate for a group of physicians, we should like to say only that the quality of the medical practices following an atomic bomb explosion will be no better than the training given the officials who are charged with organizing the operating groups of medical practioners and their assistants and the training of the former.

One subject of great importance concerns the operational phases, since it will be impossible for physicians to administer to the thousands of casualties around them without a well-organized plan.

One concept for atomic disaster operations envisions the establishment of operational field stations at control points on the major roads leading into the damaged area. These control centers will be set up at the closest possible safe distance from the epicenter. The perimeter outlined by these stations around the disaster area might be called the "rescue perimeter." Another line of defense within this area might be the "fire defense perimeter," beyond which every effort is made to contain the conflagration. This type of control will be necessary because there will not be, even under ideal conditions, enough water available to fight all fires.

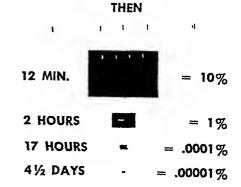
During the first half hour, before the conflagration has fully developed, it will be possible to send in "guide rescue" teams to escort or carry the dazed or injured to the rescue perimeter control stations. Here the physician takes over.

If the guide rescue team has done its job well the casualty will be tagged so that his location at the time of the blast will be known: e.g., if he is not burned then it means he was shielded—but how and how much?

No attempt should be made to extricate persons by using equipment or many men within the fire defense perimeter. To do so would deny possible rescue to many more persons. Time and manpower will be at a premium.

There must be training courses to give all persons, who might be called upon, sound, practical, down-to-earth information, enabling them to handle casualties with more than a smattering of ignorance concerning radiation damage effects.

# IF THIS BLOCK REPRESENTS DEGREE OF RADIOACTIVITY ONE MINUTE AFTER BURST



DECREASE OF RADIOACTIVITY IN TIME

# DISTRICT MEETING SCHEDULED FOR DETROIT, APRIL 20TH

# PHARMACISTS OF FOUR STATES URGED TO ATTEND IMPORTANT SESSIONS

Following the procedure adopted several years ago, the American Pharmaceutical Association will again endeavor to bring its activities to the attention of pharmacists in various parts of the United States, especially sections of the country where there has been no annual convention of the Association in recent years, and where no annual convention is in prospect. The first of these district meetings for 1951 will be held in Detroit, Michigan, on Friday, April 20. The second meeting is planned for Los Angeles on Thursday and Friday, May 10 and 11.

In arranging for the Detroit district meeting, the cooperation of the Michigan Academy of Pharmacy and the Michigan Branch of the American Pharmaceutical Association has been enlisted and an unusually excellent program has been arranged.

The district meeting of the A. Pr. A. will convene at the Statler Hotel in Detroit on Friday morning, April 20, promptly at 10:00 a.m. President Henry Gregg, of the American Pharmaceutical Asso-CIATION, will preside and give the opening address. This will be followed by an address by Dr. Robert P. Fischelis, secretary and general manager of the Association, "Pharmacy in the Nation's Service." Immediately after the completion of these addresses. there will be a discussion period, and all pharmaeists in attendance at this meeting are invited to present their questions in writing or from the floor. The officers of the Association will endeavor to answer the questions, and at 12:00 o'clock the meeting will recess for luncheon, which will be served in the Statler Hotel. The luncheon speaker for this occasion will be Dr. Hugh C. Muldoon, dean of the School of Pharmacy, Duquesne University, Pittshurgli, Pennsylvania.

The afternoon session will be in charge of the Michigan Academy of Pharmacy and will consist of a symposium on the general subject of the heart and circulatory system. This meeting will be held in the Rackham Memorial Building, Woodward Avenue at Farnsworth. This program will be presented in three parts.

- "Present Status of the Management of Peripheral Vascular Diseases," by Dr. Sibley
  W. Hoohler, Assistant Professor of Internal
  Medicine, University of Mieligan Medical
  School.
- "Critical Discussion of Drugs Used in Treating Heart Conditions," by Dr. Franklin D. Johnston, Professor of Internal Medicine, University of Michigan Medical School.

 "Surgery as Related to the Circulatory System," by Dr. Prescott Jordan, Research Fellow in Charge of Surgical Division Research, Wayne University Medical School, and member of surgical staff, Detroit Receiving Hospital.

Promptly at 6:15 p.m., there will be a dinner under the auspiecs of the Michigan Academy of Pharmacy, followed by brief addresses by Mr. Henry H. Gregg, president of the A. Ph. A., and Mr. Don E. Francke, president-elect of the A. Ph. A., who takes office at the annual convention during the last week of August. The dinner will be held at the Rackham Memorial Building.

The concluding program for the day will be the Stevens Memorial Lecture, under the auspices of the Michigan Academy of Pharmacy, which will be given at 8:15 p.m. at the Engineering Society of Detroit in the Rackham Memorial Building, Woodward Avenue at Farnsworth. This meeting will be presided over by Dr. Esten P. Stout, president of the Michigan Academy of Pharmaey. There will be brief remarks by Dr. Robert P. Fischelis, secretary of the American Pharmaceutical Association. and Dean Charles H. Stocking of the University of Michigan College of Pharmaey. The principal addresses of the evening will be by Dr. Tom D. Spies, head of the Department of Nutrition and Metabolism, Northwestern University Medical School: head of Nutrition Clinic, Hillman Hospital, Birmingham, Alabama, and his subject is "Recent Advances in Nutrition and Metabolism."

Dr. Spies has been doing concentrated study in the field of nutrition and metabolism for the past twenty years and his work is greatly responsible for the recent advances which have been made in the recognition of vitamin deficiency diseases. He was the first to use some of the vitamins in effective amounts. Dramatic results have followed the persistent administration of adequate amounts of specific therapeutic agents, such as vitamin C, vitamin B<sub>12</sub>, folic acid, nicotinamide and these have made Dr. Spies an outstanding authority. He will use lantern slides to illustrate his talk.

Members of the American Pharmaceutical Association and pharmacists generally from the states of Ohio, Indiana, Illinois, Michigan and other near-by sections are cordially invited to attend this meeting, and to come prepared with their questions and comment on A. Ph. A. activities which will be covered at the morning session.

# 

### Recent Progress in Medicine

# ESTROGEN CREAM IN ACNE VULGARIS

Treatment in twenty-five cases of aene vulgaris with an estrogenie cream gave excellent results in fifteen, good in four, fair in three, and in the remaining three cases the patients could not tolerate the cream because of itching, flare-ups, and cosmetic disagreeableness.

The report, written by Dr. Irving Shapiro of Newark, New Jersey, and appearing in the February issue of the Archives of Dermatology and Syphilology, presents evidence that this disease is primarily an endocrine disturbance. In brief, the evidence is as follows: (a) usual incidence is at puberty; (b) the premenstrual flarc-up of the lesions occurs when the estrogen level is lowest; (c) aene occurs in females who are given androgen, with improvement after withdrawal of androgen and recurrence when it is given again; (d) acne is not found in eunuclis; and (e) aene occurs more commonly among males.

Local application of estrogens was employed in the form of a cream containing 2.5 mg. of watersoluble conjugated estrogenic substances (equine), expressed in terms of sodium estrone sulfate per gram of vanishing cream base.

The average dose was 5 mg. of the estrogenic substances applied to the affected areas once daily or divided into morning and evening applications as an after-shave eream for the men and a powder base for the women. Treatment was continued for an average of four months. Total amount of estrogenic substances applied ranged from 150 to 700 mg.

### SYNTHESIS OF STEROID HORMONES

Synthesis of progesterone, testosterone, and other important steroid hormones from leaves of various common tomato plants was reported in the February issue of the Journal of the American Chemical Society by Drs. Yoshio Sato and Erieh Mosettig of National Institutes of Health, Public Health Service, and Dr. Alfred Katz, visiting research fellow from Switzerland. The authors revealed that three steps are needed to convert tomatidine into a pregnene derivative which can be transformed into progesterone and testosterone.

Tomatidine, a chemical compound derived from the roots and leaves of the tomato plant, was first isolated in 1948 by Dr. Thomas Fontaine and associates at the Bureau of Agricultural and Industrial Chemistry of the Department of Agriculture.

Progesterone is widely used for various menstrual disturbances, to prevent spontaneous abortion, and in the relief of symptoms due to cervical cancer. Testosterone also is widely used for menstrual disturbances, as well as for eunuchoidism and for the relief of breast cancer.

Progesterone and testosterone are normally prepared from three compounds: eholesterol, isolated from animal nerve tissue, such as the brain; stigmasterol, from soybean; and diosgenin, from Mexican yams.

Synthesis from these sources, however, demands cither more chemical steps than the conversion of tomatidine, or, as in the case of diosgenin, where synthesis is relatively simple, the source—the Mexican yam—does not grow widely in the United States. Tomatidine, derived from the leaves of a hardy garden plant normally wasted in the commercial process of tomato canning or tomato juice manufacture, promises to be the most available and least expensive method.

Eventually all of the afore-mentioned compounds, including tomatidine, will most likely be sources for the synthesis of cortisone—depending on one crucial chemical reaction which has not yet been achieved, namely, the introduction of an oxygen group into Ring C. When such a synthesis is made from any one of the compounds, its procedure can be adapted to the others.

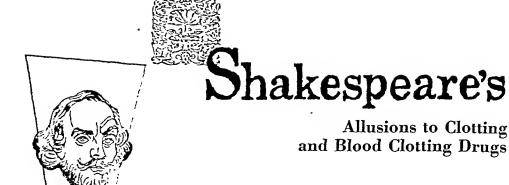
## CHLOROMYCETIN IN INFLUENZAL MENINGITIS

Twelve children suffering from influenzal meningitis showed striking clinical response to treatment with chloromycetin. Improvement was apparent in 36 hours and signs of meningeal irritation, such as stiff neck and inability to extend the legs when in a sitting position, had abated by the fifth day of treatment. No fatalities occurred.

The heartening report, written by Drs. F. R. McCrumb, Jr. H. E. Hall, J. Imburg, J. Basoray Defillo, T. E. Woodward, and Miss Ann Meredith and Master Sergeant R. Helmhold, U. S. A., and appearing in the February 17 issue of the Journal of the American Medical Association, points out that before the advent of the sulfonamides and the anti-biotics, influenzal meningitis among infants caused death in 95 per cent. The age of the patients in this series ranged from 5 months to 5 years, with an average of 2.4 years. Eight were 18 months or less.

The patients received chloromyeetin for an average of eight days by the oral and rectal routes. An average of 10.4 Gm. was administered during this time, without toxic signs.

The authors stated that in patients aged 1 to 5 years an initial oral dose of approximately 750 mg. of chloromycetin is sufficient, with subsequent doses of 250 mg. every four hours to maintain an adequate concentration in the blood and spinal fluid. It was also stated that an intravenous form of the drug would be valuable in the early acute stages of the disease.



-By David L. Macht, M.D., F.A.C.P.-

Presented before the Section on Historical Pharmacy, AMERICAN PHARMACEUTICAL ASSOCIATION, 1950 meeting, Atlantic City, N. J.

The medical profession and the general public have, in recent years, become "coagulation minded." This may be attributed in part to the increasing number of deaths due to thrombo-embolic diseases, such as coronary occlusion and apoplexy due to clots in the cerebral vessels, and partly to the discovery by the author that many drugs in common use tend to shorten the coagulation time of blood in human beings and the lower animals. Such an influence on clotting of whole blood was observed after administration of digitalis tincture, digitoxin, digitonin, stropbanthus, mercurial diuretics, penicillin, streptomycin, aureomycin, and many antiluetic drugs—observations of obvious practical as well as scientific importance.

Many years ago I was engaged in the study of absorption of drugs and poisons through unusual channels, and for that reason became interested in the question of whether it was possible for poisons to be absorbed through the intact ear. Such a case is mentioned in *Hamlel*, Act I, scene 5, lines 59-73, as follows:

Sleeping within mine orchard,
My custom always in the afternoon,
Upon my secure hour thy uncle stole,
With juice of cursed hebenon in a vial,
And in the porches of mine ears did pour
The leperous distilment; whose effect
Holds such an enmity with blood of man
That swift as quicksilter it courses through
The natural gates and alleys of the body;
And with a sudden vigour it doth posset
And curd, like eager droppings into milk,
The thin and wholesome blood; so did it mine;
And a most instant tetler bark'd about,
Most lazar-like, with rile and loathsome crust
All my smooth body,

In a previous paper, published in The Johns Hopkins Hospital Bulletin, I discussed the identity of the poison "hebenon" mentioned by Shakespeare. The usual meaning of the word "hebenon" is taken to be "henbane" or "hyoscyamus."

I was intrigued by Shakespeare's description, in

Hamlet, of the action of hebenon on the blood. It was, therefore, decided to investigate pharmacologically the effect of byoscyamus on blood clotting in rabhits and other animals. It was found that this drug does shorten clotting time of whole blood both after intravenous and parenteral injections, and also when administered through the stomach. This investigation was then extended to an inquiry as to the effects on blood clotting of other drugs known to Shakespeare, and still later led to a study of a long list of galenical preparations as well as active principles in our present pharmacopeia, with surprising results.

Of poisons mentioned by Shakespeare in his plays, in addition to henbane, the following are of particular interest: opium, aconite, belladonna, mandragora, and bemlock. Many passages are found in his plays which refer to these drugs. Belladonna is mentioned in *Macbelh*, Act I, scene 3:

Were such things here as we do speak about; Or have we eaten of the insane rool That lakes the reason prisoner;

Mandragora is found in *Henry IV*, Act IV, sccnc 2, as follows:

So early waking, what with loathsome smells, And shrieks like mandrakes', torn out of the earlh, That living mortals hearing them run mad—

Aconite is referred to in the second part of *Henry IV*, Act IV, seene 4:

And thou shall prove a sheller to thy friends; A hoop of gold, to bind thy brothers in; That the united vessel of their blood Mingled with renom of suggestion (As, force perforce the age will pour it in) Shall never leak, though it do work as strong As aconitum, or rash gunpowder.

Opium appears in Olhello, Act III, scenc 3, as follows:

Nor all the drowsy syrups of the world, Not poppy, nor mandragora.





Hemlock is mentioned in Aing Lear, Act IV, scene 1, as follows:

As mad as the vex'd sea, singing aloud, Crown'd with rank fumiler and furrow weeds, With harlocks, hemlock, nettles, cuckoo-flowers, In our sustaining corn

And also in Macbeth, Act IV, scene 1, as follows:

Scale of dragon, tooth of wolf, Witches' mummy, maw and gulf Of the raun'd salt, sea shark Root of hemlock digg'd i' the dark

All these drugs were found to be surprisingly active as thromboplastic agents in the blood of rabbits, both in vitro and in vivo, as well as by injection and by gastric administration. This finding, originally started through a study of Shakespeare, seemed to be of considerable medical interest. The investigation was, therefore, extended still further by an experimental study of a long series of galenical preparations as well as of pure alkaloids. The results of this research were described in detail in The American Journal of Pharmacy, January, 1949.

The expression "clotting" or "clot" is, of course, etymologically identical with the word "clod" which means lump or lumping, and blood clotting is essentially the lumping of fibrin and blood cells Shakespeare, however, employs other terms to convey the idea of clotting In the passage from Hamlet, quoted previously, the words "posset and curd" are used Other expressions conveying the same idea found in Shakespeare's plays are "lieavy" or "thick" referring to blood, and the word, "congcal."

Four other references to blood clotting may be found in Shakespeare which are of extraordinary interest to the modern physiologist and pharmacologist. These refer to the influence of the major emotions on the clotting properties of blood. The late Professor W. B. Cannon of Harvard in his book, Bodily Changes in Pain, Hunger, Fear and Rage published in 1934, attributed the more rapid clotting of the blood to an increased secretion of epinephrine by the suprarenal glands during rage and other major emotions.

More recent experimental work by myself and coworkers indicates, however, that it is not cpinephrine or adrenalin alone which is responsible for this phenomenon, but other thromboplastic agents generated at the height of rage or fear. A remarkable passage in *Macbelli*, Act I, seene 5, conveys this idea concerning the inter-relation between rage and anger and blood clotting, which makes the reader marvel at the uncanny choice of metaphors by the playwright, who certainly was not acquainted with the modern theories of blood clotting. This passage reads as follows:

Come, your spirits that end on mortal thoughts, unsex me here;
And fill me, from the crown to the toe, top-full of direst cruelly! Make thick my blood
Stop up the access and passage to remorse
That no compunctious visitings of nature
Shake my felt purpose, nor keep peace between
The effect and it! Come to my woman's breasts
And take my milk for gall, your murdering ministers
Wherever in your sightless substances
Your wait on nature's mischief! Come, thick
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Another remarkable reference to clotting of the blood is in connection with psychic depression, and is found in King John, Act III, seene 3. This is of special interest to the present writer, who for the last ten years has been engaged in the study of the blood physiology and pharmacology of psychotic patients. He found invariably in manic depressive and melancholic states marked changes in the blood. This passage reads as follows:

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The other in All's Well That Ends Well, Act I, scene 3.

Does it curd thy blood to say I am thy Mother?

Still another passage, occurring in A Midsummer Night's Dream, is extremely interesting from the pharmaceutical point of view—In Act III, scene 1, Bottom speaks to Cobweb as follows:

"I shall desire you of more acquaintance, good Master Gobieb If I cul my finger, I shall make bold with you"

Cobwebs have been used as styptics to stanch blood oozing, and we find this listed even in Sir Lander Brunton's Treatise on Materia Medica and Pharmacology, 3rd ed., 1889

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## Civil Defense Administration To Establish Training Schools

The complexities of a "wizard war," if one comes, make it imperative that the nation know how to defend itself and overcome attacks of an atomic, biological, and chemical character. Effective leadership and organized civil defense training will prepare the country to meet these hazards.

To this end, the Federal Civil Defense Administration is establishing a National Civil Defense Staff College and is supplementing the program with three training schools to he set up in different areas of the country.

According to Millard Caldwell, Administrator of the FCDA, the Staff College under the Leadership Training Division, Dr. John R. Nichols, Director, will study the over-all tactics and strategy to be followed after an attack, and will examine the methods necessary to re-establish civilian morale. The courses are to be offered to top management planners and civil defense state administrators.

The three technical schools, one of which prohably will be attached to the Staff College in Washington, will teach instructors who, in turn, will set up classes in their own communities. The schools' purpose is to train teachers. The other two schools will he located to serve the Midwestern, Midsouthern, Rocky Mountain, and Pacific Coast sectors of the country, near to critical target regions, but not directly in such areas.

The schools will teach the techniques of detection and defense. The main course will stress rescue work and defense against "ABC" warfare. Virus and plant diseases, and new and untried nerve gases will be studied, as well as tunneling techniques to reach an injured person, and the methods of handling him until the doctor arrives. In addition, the trainees will learn the principles of radiological and hacteriological monitoring.

Candidates for study at these schools will be recommended by the state civil defense organizations. Many will be from city Civil defense organizations. The FCDA will leave the matter of recommendation of local personnel up to the state director.

### Pharmacists as Trainees

It has been stated that the pharmacist, as the ally of the physician and a leader in his community, would be an excellent instructor-candidate. He should first enroll in the American Red Cross first aid course where, in addition to the regular techniques of first aid, he will learn how to recognize the symptoms of radiation siekness and how to treat in-

juries due to chemical warfarc, as well as blast, shock, and major burns.

After this hasic training he could enroll in his local civil defense organization, and thus get into the pool from which the state director will nominate candidates for the training schools.

"There is a crucial need for effective leadership in the nation-wide civil defense program," it was stated at a recent meeting of the American Council on Education. "Unfortunately, the 'lights of perverted science,' to which Mr. Winston Churchill referred in 1940, are not dimmed. They have increased in their intensity to the point where we in the United States face atomic, biological and chemical warfare directed toward civilian populations rather than toward armies in the field. Whether we are on the threshold of a new Dark Age will depend largely upon how we in this nation now conduct ourselves. We have not a moment to lose in getting ready for the test."

### CD Motion Pictures Available

The FCDA has a scries of official one-reel movies available for purchase or rental through normal trade channels. These films were produced by private capital.

The film, Survival Under Atomic Attack, is based on the official booklet mentioned above, and is now available; Preparing Your Home Against Atomic Attack will he released next month, and Fire Fighting for Householders is set for May. Others in the series will be: What You Should Know About Biological Warfare, What You Should Know About Poison Gases, Emergency Action to Save Lives, and This Is Civil Defense.

### Colonel Wilson Appointed

The FCDA has announced the appointment of Colonel William L. Wilson, United States Army Medical Corps, as assistant administrator for Health and Welfare in the FCDA. Since 1948, Col. Wilson has been special assistant to the Surgeon General of the U. S. Army for Civil Health Affairs.

During 1944-45, Col. Wilson served as deputy chief, Public Health Branch, SHAEF and prepared the Allied plans for civil affairs health operations in northwest Europe, which resulted in the establishment of comprehensive public health programs in France and Belgium. Both these governments have conferred the order of merit on Col. Wilson for his work in the health field.

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Candidates for study at these schools will be recommended by the state civil defense organizations Many will be from city Civil defense organizations. The FCDA will leave the matter of recommendation of local personnel up to the state director.

### Pharmacists as Trainees

It has been stated that the pharmacist, as the ally of the physician and a leader in his community, would be an excellent instructor-candidate. He should first enroll in the American Red Cross first aid course where, in addition to the regular techniques of first aid, he will learn how to recognize the symptoms of radiation sickness and how to treat in-

juries due to chemical warfare, as well as blast, shock, and major burns

After this basic training he could emoll in his local civil defense organization, and thus get into the pool from which the state director will nominate candidates for the training schools

"There is a crucial need for effective leadership in the nation-wide civil defense program," it was stated at a recent meeting of the American Council on Education. "Unfortunately, the 'lights of perverted science,' to which Mr. Winston Churchill referred in 1940, are not dimmed. They have increased in their intensity to the point where we in the United States face atomic, biological and chemical warfare directed toward civilian populations rather than toward armies in the field. Whether we are on the threshold of a new Dark Age will depend largely upon how we in this nation now conduct ourselves We have not a moment to lose in getting ready for the test"

### CD Motion Pictures Available

The FCDA has a series of official one-reel movies available for purchase or rental through normal trade channels. These films were produced by private capital.

The film, Survival Under Alomic Allack, is based on the official hooklet mentioned above, and is now available; Preparing Your Home Against Alomic Allack will be released next month, and Fire Fighting for Householders is set for May. Others in the series will be: What You Should Know Aboul Biological Warfare, What You Should Know Aboul Poison Gases, Emergency Action to Save Lives, and This Is Civil Defense.

### Colonel Wilson Appointed

The FCDA has aunounced the appointment of Colonel William L Wilson, United States Army Medical Corps, as assistant administrator for Health and Welfare in the FCDA. Since 1948, Col. Wilson has been special assistant to the Surgeon General of the U.S Army for Civil Health Affairs.

During 1944-45, Col. Wilson served as deputy chief, Public Health Branch, SHAEF and prepared the Allied plans for civil affairs health operations in northwest Europe, which resulted in the establishment of comprehensive public health programs in France and Belgium. Both these governments have conferred the order of merit on Col. Wilson for his work in the health field.









## By Dr. Richard A. Deno'i

Dr. Deno, who recently returned from an extended visit to France, finds several differences—and many similarities—in French and American Pharmacy. Part I of a two part article.

Having observed the practice of pharmacy in France for several months, it is evident that pharmacy in France has many of the problems of pharmacy in America. There has been no French Pharmaceutical Survey, so that documentation of the problems facing pharmacy in France is not readily available. Likewise, it is difficult to judge whether the practice of pharmacy functions at a higher level there than in America. Nevertheless, the impression remains that it does, but also that pharmacy in France and pharmacy in America are not so different as many suppose them to be.

### French Pharmacies

Strictly speaking, all retail pharmacies in France are professional establishments, since a governmental decree lists the classes of merchandise that can be stocked. Twenty-one eategories are listed, and they include the articles commonly found in America in a professional or semi-professional pharmacy.

However, certain pharmacists limit their practice solely to professional items. Their shops are sometimes termed "traditional pharmacies," and correspond to our strictly professional pharmacies. Other pharmacists have developed departments of proprietary medicines, special foods, perfumes, or insecticides and rodenticides. These shops resemble the semi-professional American stores, and in France are commonly called "commercial pharmacies."

The strictly professional pharmacy is more common in France than in America, and is frequently very similar to its American counterpart. Prescriptions constitute the principal source of revenue, but non-prescription medicinals and sick room supplies are sold, as well, but other side lines are usually absent. Physically, these pharmacies are generally.



attractive and well kept, featuring, quite often, antique faience pharmacy jars and ancient mortars. Window displays usually feature sick-room aids, professional equipment or educational exhibits of such products as penicillin or insulin. Equipment and stocks are complete and modern.

Visits to professional pharmacies leave the impression that the sale of vegetable drugs is much greater in France than in America. Infusions are popular as home remedies—chamomile, mint, tilleul and others It also appears that more small-scale manufacturing is done in French pharmacies. No accurate statistics are available on the average price of prescriptions, but it is certainly lower than in the United States. But then, so too are salaries, even as low as \$100 a month for a young pharmacist. Many more women are found operating or working in professional pharmacies in France. In most other respects, there is little difference among professional pharmacies in the two countries.

The term drugstore is never employed in France. There are no stores like the type of American drugstore which has soda fountain, luncheonette and manifold side lines. There are, however, many which stock a much greater variety of articles than do the strictly professional shops. These are the French "commercial pharmacies," which correspond to our semi-professional pharmacies, and in appearance resemble those American drugstores which lack fountains and the side lines remote from professional pharmacy.

Such stores fill many prescriptions and vend medicinals. In addition, they carry stocks of proprietary medicines, sick-room aids, cleaning supplies, and toiletries. The latter are sold also in special shops for toiletries; and beauty parlors and barber shops carry large stocks of cosmetics, as do the department stores. This is, of course, true in

America, as well.

Candies and nuts are not sold in French pharmacies, but in candy shops and sometimes in small variety stores. Cigarcttes are sold only in government tohacco shops and licensed cafes. Newspapers, magazines, and books are also absent; their sale is re-

stricted to stationery and book stores, or to street For certain articles, as tobaccos and liquors, salc in pharmacies is prohibited by law. In other cases, French merchants appear to have greater respect for spheres of influence than do their American counterparts.

### Hospital Pharmaeies

In French hospitals, even the smaller ones, the pharmacy occupies a prominent and important place. This situation is not a recent development, but dates back to the earliest hospitals established in France. In many hospitals, the ancient pharmacies have been replaced by modern ones, with the original pharmacy retained in lolo as a museum or retained in part as a cultural annex to the modern functional pharmacy.

At Carpentras, a small city near Avignon in the south of France, the magnificent hospital called l'Hotel-Dieu, founded in the middle of the eighteenth century and maintained since that time, has preserved its original pharmacy apart from the modern functional one. The latter is a well-equipped and efficiently managed hospital pharmacy, with facilities for small-scale manufacturing. The ancient pharmacy has its old-time fixtures, and a rich collection of faience jars of French and Italian origin. It also prescrives the antique mortars and handblown glassware used in former centuries. In addition to its pharmaceutical antiques, l'Hotel-Dieu at Carpentras has valuable art treasures in its chapel and museum.

At the wine-making center of Beaune, in Burgundy, the world-famous Hotel-Dieu, a charitable hospital established in the middle of the fifteenth century, has a comparable interest. The modern pharmacy is apart from the original. The latter, like that at Carpentras, has a priceless collection of pharmaceutical antiquities in faience, pewter, and The Hotel-Dieu at Beaune also preserves a fine collection of tapestries, paintings, and furniture in its chapel and museum. The hospital, immaculate throughout, is supported largely through its financial interests in local vineyards.

Variations are wide in equipment, personnel, and services rendered among the hospital pharmacies in France. However, the importance of this branch

Rutgers University College of Pharmacy, Director of Educational Relations, American Council on Pharmaceutical Education.

<sup>\*</sup> Helpful criticisms of this article were made by Monsieur Michel Laurent, Permanent General General Secretary, The Order of Pharma-



of the profession is widely recognized. In cities having a Faculty of Pharmaey, the Dean or Professor of Pharmaey is usually the titular head of one or more hospital pharmacies.

### Mutualists and Other Pharmacies

Less common in France than the types mentioned are the mutualist pharmacies. These are owned by societies comprised of the workers in a region. Members of the societies received preferential trentment at the mutualist pharmacies, and the spread of this cooperative form of pharmacy is not regarded with favor by the independent pharmacists of France. Pharmacists employed in these shops are registered with the Order of Pharmacists as "mutualists."

Also less eommon than the professional or semiprofessional pharmacies are the herboristeries. These are herb-stores, not licensed to fill prescriptions, but authorized to sell medicinal plants or plant parts, except those specified in the official lists of poisons and stupefacients. Proprietors are termed herborists, have had formal training in botany and pharmacognosy, and are licensed by law. However, the granting of diplomas to herborists has been discontinued. One already in practice is allowed to continue throughout his lifetime but the business must be liquidated at his death, and licenses for new herboristeries are no longer granted.

### Laws and Licenses

Since the passage of the pharmaey law of 1941, a pharmaeist who has fulfilled all legal requirements and is the French equivalent of our registered pharmaeist is not allowed to establish a pharmaey without first obtaining a store license from the prefect of the department (geographical subdivision) in which the pharmaey is to be established. This regulation applies also to one who wishes to acquire ownership of a pharmacy already in operation.

Store licenses are not granted, either for new stores or for ownership transfers, unless the number of pliarmaeies already in existence is smaller in proportion to the total population of the community than is the number indicated by fixed ratios established by law. Cities with populations greater than 30,000 are allowed to have one pharmaey per 3000 inhabitants. Those numbering between 5000 and 30,000 inhabitants may have one pharmaey per 2500. Towns smaller than these have the ratio fixed at one per 2000 inhabitants. Paris and some other large eities now have more pharmacies than permitted by a ratio one to 3000, because more were already in existence before the law became effective. It will be some time before a sufficient number of pharmacies go out of business to bring the actual ratio within the limits prescribed by law. In smaller communities,

openings for pharmacies exist, and a list of such openings is available to registered pharmacists who wish to go into business for themselves.

It is difficult to learn exactly how many pharmaeies exist, since the store licenses are granted by the prefects of the ninety departments of France. Figures are available, however, on the number of registered pharmacists. With a population of around 45,000,000 France has 15,160 registered pharmacists; a ratio of one pharmacist to each 3000 inhabitants. With our population of 150,000,000, we have over 90,000 registered pharmacists; a ratio of one to approximately 1700.

### Other Factors

Obviously, there are many other factors in French pharmacy which cannot be adequately covered in the short space of one article. Four of these factors are listed in the box below.

However, for the present at least, it is possible merely to sketch the broader aspects of the profession in France, and to remark that conditions there are not too unlike those that are enjoyed here. It is probably a commentary on the international role of pharmacy, when we find so many similarities between the two nations.

### French and American Pharmacy

French salaries are lower, but monetary success is not valued as highly as here.

More women practice pharmacy in France, in stores as well as hospitals.

Candy, magazines, cigarettes, and other similar items often found in American are not sold in French Pharmacies.

Location of Pharmacies is dependent on population and need. If statistically a store is not needed, it cannot be opened.

### BUT-

There are too many specialties.

There are too many duplications.

There are too few detail men.

There are too many records and laws.



AUREOMYCIN was found ineffective in curing the common cold. Colonel Robert J. Hoagland, M. C., used the antibiotic and a placebo in a controlled study at West Point and found no difference in results obtained.

THE NUTRITIVE VALUE of FOODS can be increased from one-tenth to one-third when supplemented with one of the antibiotics. Dr. C. G. King, Scientific Director of the Nutrition Foundation, New York City, can't explain it, but animals fed on an antibiotic-supplemented dict showed weight increases of from 10 to 30 per cent.

ATOMIC "DOG TAGS" have been developed by the Army Signal Corps, to be worn by soldiers and civilians. The tag contains a self-developing film which discolors when exposed to radiation. The degree of discoloration measures the degree of exposure of radioactive waves produced by atomic explosion.

CORTISONE and ACTH may produce atherosclerosis. Drs. David Adlersberg, Louis Schaefer, and Stanley R. Drachman of Mt. Sinai Hospital, New York City, found that 77 per cent of patients receiving the drugs over long periods developed an excess of cholesterol in the blood, a factor believed linked to atherosclerosis.

HEPARIN, DICUMAROL, and TROMEXAN are being used successfully to combat and prevent blood clots. Dr. Irving S. Wright, of Cornell University Medical College, cited a study of 1034 cases of coronary thrombosis with myocardial infarction made for the American Heart Association, in which it was demonstrated that use of the anticlotting drugs reduced the mortality rate by one-third and the rate of thrombo-embolic complications by three-fourths.

HEPARIN also gives excellent results in treatment of frostbite, Dr. Harris B. Shumacker of Indiana University Medical Center, Indianapolis, found, by its anti-blood clotting action.

DENERVATION of the PELVIC COLON is the term for a new operation for ulcerative colitis. The new operation, reported by Drs. Benjamin G. P. Shapiroff and J. W. Hinton of New York University College of Medicine, was performed on five patients, with marked improvement in symptoms and physical conditions.

BUTACAINE SULFATE was found to prevent ventricular fibrillation during cardiac operations in experiments carried out by Drs. Alexander H. Bill, Jr., and Jacob C. Wagner, University of Washington School of Medicine, Seattle. A 1 per cent solution of the drug was injected into the pericardium in fifty cases; fibrillation occurred in only two.

CRYSTALLINE TRIPSIN (Tryptar) is used in a new treatment for tuberculous empyema by Drs. H. G. Reiser and L. C. Rocttig of Ohio State University's Department of Research Surgery, Columbus. A solution of trypsin was used in daily irrigations of the chest for seven to ten days, the enzyme liquefying the pus and debris and permitting aspiration. In three cases surgery was not necessary; in the remaining cases less radical surgery than previously performed was carried out.

TERRAMYCIN, specially prepared as an ophthalmic liquid, was used in treatment of 123 cases of various eye infections by Dr. Arno E. Town of Jefferson Medical College, Philadelphia, Pa. The antibiotic proved effective in all but twelve cases; it was particularly useful in deep-seated infections and in areas difficult to reach.

Terramycin also shows promise when used in peritonitis and other abdominal infections. The antibiotic, first tested against more than 300 strains of microorganisms isolated from surgical wounds, gave "promising results" in several cases, according to Lieutenant Colonel E. J. Pulaski, Colonel Joseph R. Schaeffer, Captain Curtis Artz, and Major Hinton F. Baker, Brooke General Hospital, Fort Sam Houston, Texas.

PPLO (pleuro-pneumonia like organisms) may be responsible for some of the "mystery" illnesses. Once believed confined to cattle, Drs. Harry E. Morton and Paul R. Leberman and Mr. Paul F. Smith of the University of Pennsylvania School of Medicine, reported finding the organisms in the genito-urinary tract, saliva, throat cultures, and stools of humans.

SODIUM FLUOSILICATE may be substituted for sodium fluoride in fluoridination of water. Dr. F. J. McClure, U. S. P. H. S. dental researcher, found sodium fluosilicate to be as effective in preventing tooth decay as sodium fluoride, two-thirds cheaper, and to contain more fluorinc.

# STATE ASSOCIATIONS START CIVIL DEFENSE PROGRAMS

## New York and Maryland Inaugurate Training and Information Plans to Supplement Federal Activity

Recognizing the dangers of possible military attack, two State Pharmaceutical Associations have set Civilian Defense programs into motion which should minimize the results of such attacks in their localities. Plans of action prepared by the Civil Defense committees of both New York and Maryland have already been put into work, and have received the commendation of the public and civic officials. Dr Leonard J Piccoli, professor of Public Health at Fordham University College of Pharmacy, and Samuel I Reichlin, a retail pharmacist in Maryland, head the committees in their respective states.

### New York Trains Pharmaeists

New York pharmacists, recognizing that their region might well become the No 1 target area of any attack, have established a Civil Defense Training Committee under the chairmanship of Dr. Piccoli, who is assisted by the Deans of the six schools of Pharmacy within the state. To guide their planning, as well as to establish a program that could be followed by all local groups, the committee prepared a "General Program," as a platform for further action.

The program is divided into two parts, the first referring to the role of the pharmaeist, and the second to the part which the schools must play in the over-all educational campaign.

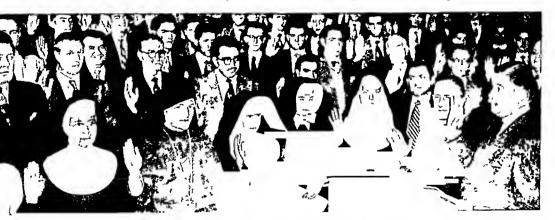
Generally speaking, pharmacists are to handle supply responsibilities, either in their own stores or in specially stocked depots. In any event, all pharmacies are to be considered as secondary medical supply depots in the event of an attack. Pharmacists not engaged in operation of a pharmacy arc to make themselves available either to first aid stations or bospitals. The program also suggests that in areas where medical personnel is limited, the pharmacists should be trained to assist in first aid work, do minor surgery and suturing, or to supervise the work of others in these various activities.

The role of the colleges is largely in training First Aid Instructors, through the ecoperation of the local Red Cross Chapter. In addition to hasie Red Cross instruction, special short courses on atomic warfare and its effect will he added to these study programs. These college-trained instructors will, upon completion of their course, he assigned to local pharmaceutical associations throughout the state to give special courses to other pharmacists. By so doing, practically every pharmacist will receive a refresher course in First Aid within a short period

### Maryland Helps Public

The Maryland plan was immediately put into action after it was presented to the association's executives. First step in the plan called for getting educational information, in brief form, into the hands of the public in the state. Toward this end, small folders were printed and distributed free to the public through pharmacies in Baltimore. Similar cards will be made available to all stores in the state. Each pharmacy owner purchased these eards and

(Continued on Page 184)



Above: Police Commissioner Thomas Murphy of New York swears in Fordham students as Civil Defense Aids. Opposite page: Maryland pharmacists reprinted these facts from U. S. booklet, "Survival Under Atomic Attack" on cards and distributed them to 500,000 people.

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### SIX SURVIVAL SECRETS FOR ATOMIC ATTACKS

Approved by The Maryland Civil Defense Director

### ALWAYS PUT FIRST THINGS FIRST AND NEVER LOSE YOUR HEAD AND

### 1. TRY TO GET SHIELDED

If you have time, get down in a basement or subway. Should you unexpectedly be caught out-of-doors, seek shelter alongside a building, or jump in any handy ditch or gutter.

### 2. DROP FLAT ON GROUND OR FLOOR

To keep from being tossed about and to lessen the chances of being struck by falling and flying objects, flatten out at the base of a wall, or at the bottom of a bank.

### 1. BURY YOUR FACE IN YOUR ARMS

When you drop flat, hide your eyes in the crook of your elbow. That will protect your face from flash burns, prevent temporary blindness and keep slying objects out of your eyes

### 4. DON'T RUSH OUTSIDE RIGHT AFTER A BOMBING

After an air burst, wait a few minutes then go help to fight fires. After other kinds of bursts wait at least 1 hour to give lingering radiation some chance to die down.

## 5. DON'T TAKE CHANCES WITH FOOD OR WATER IN OPEN CONTAINERS

To prevent radioactive poisoning or disease, select your food and water with care. When there is reason to believe they may be contaminated, stick to canned and bottled things if possible.

### 6. DON'T START RUMORS

In the confusion that follows a bombing, a single rumor might touch off a paoie that could cost your life.

This card is made available as a Public Service by your Pharmacist

### FIVE KEYS TO HOUSEHOLD SAFETY

### 1. STRIVE FOR "FIREPROOF HOUSEKEEPING"

Don't let trash pile up, and keep waste paper in covered coorginers. When an alert sounds, do all you can to eliminate sparks by shutting off the oil burner and covering all open slames.

### 2. KNOW YOUR OWN HOME

Know which is the safest part of your cellar, learn how to turn off your oil burner and what to do about utilities.

### 3. HAVE EMERGENCY EQUIPMENT AND SUPPLIES HANDY

Always have a good flashlight, a radio, firstaid equipment and a supply of canned goods in the house.

### 4. CLOSE ALL WINDOWS AND DOORS AND DRAW THE BLINDS

If you have time when an alert sounds, close the house up tight in order to keep out fire sparks and radioactive dusts and to lessen the chances of being cut by slying glass. Keep the house closed until all danger is past.

## 5. USE THE TELEPHONE ONLY FOR TRUE EMERGENCIES

Do not use the phone unless absolutely necessary. Leave the lines open for real emergency traffic.

### KILL THE MYTHS

### ATOMIC WEAPONS WILL NOT DESTROY THE EARTH

Atomic bombs hold more death and destruction than man ever before has wrapped up in a single package, but their over-all power still has very definite limits. Not even hydrogen bombs will blow the earth apart or kill us all by radioactivity.

## DOUBLING BOMBYPOWER DOES NOT DOUBLE DESTRUCTION

Modern A-bombs can cause heavy damage 2 miles away, but doubling their power would extend that range only to 2½ miles. To stretch the damage range from 2 to 4 miles would require a weapoo more than 8 times the rated power of present models.

## RADIOACTIVITY IS NOT THE BOMB'S GREATEST THREAT

In most atom raids, blast and heat are by far the greatest daogers that people must face. Radioactivity alone would account for ooly a small percentage of all humao deaths and iojuries, except in underground or underwater explosions.

### RADIATION SICKNESS IS NOT ALWAYS FATAL

In small amounts, radioactivity seldom is harmful. Even when serious radiation sickness follows a heavy dosage, there is still a good chance for recovery.

# MEASURING QINTMENT FIRMNESS

By Walter G. Fredell\*

CONSISTENCY or firmness is of interest in
many pharmaccutical and cosmetic preparations. Therefore, methods of determining
this property are important. The degree of
firmness indicates to some extent the ease
with which an ointment or cream can be
spread, and it is important to know that
batches made at different times have the
same spreadability.

This paper presents an easily constructed device for measuring the consistency of semisolid pharmaceutical and cosmetic products. Results obtained are recorded numerically and are duplicable.

### The Lattice Consistency Apparatus

The lattice consistency apparatus consists of two parallel picces of wood 1 inch high, 1/2 inch wide, and 18 inches long, which have semicircular grooves spaced at intervals along their length. (These grooves are easily made by clamping the two pieces of wood together to form one piece 2 x 1/2 x 18 inches and drilling 1/8-inch holes at the designated intervals down the center.) The distance from the center of groove 0 to the center of groove 1 is 1/8 inch, from 1 to 2 is 2/8 inch, from 2 to 3 is 3/8 inch, increasing 1/8 inch for each succeeding interval up to 15.

The two parallel pieces are placed about six inches apart, and applicator sticks are laid across them in the grooves to form a lattice. Numerical recording of consistency

### Method

The product, in a collapsible tube fitted with a cap in which a <sup>1</sup>/<sub>8</sub>-inch hole has been drilled, is extruded in a ribbon across the lattice from 0 to 15. (For some products, it is convenient to have a smaller hole in the cap.) Three ribbons are extruded and the reading of the consistency is based on at least two of the ribbons breaking between the same applicator sticks. The number of the last stick which supports at least two ribbons of the product is the numerical consistency reading. Readings are made one minute and five minutes after extrusion of the product across the lattice.

Readings at these time intervals are made because slight differences in consistency are indicated when comparing products. To illustrate: if readings such as those in Table I were obtained on three experimental emulsion type ointments, the readings would indicate that product A is firmer than product C, and that C is firmer than B.

Table I-Consistency Readings

1 minute	5 minutes	
7	7	
6 `	6	
7	6	

Figure 1								
0.1 2 3	4	5	6	713	14	15		

is taken from the numbers 1 to 15 which represent increased distances of  $^{1}/_{8}$  inch for each succeeding number. The scale of intervals but not the exact measure, is illustrated in Figure I.

### Discussion

With most formulations on which lattice readings can be obtained, the readings show a direct relationship to the consistency of the product. As with other consistency measuring devices, there are instances when the results seem anomalous.

<sup>\*</sup> Lambert Pharmacal Co., St. Louis, Missouri. Presented to the Section on Practical Pharmacy, American Pharmaceurical Association, 1950 meeting, Atlantic City.



Members of the American Pharmaceulical Association are invited to submit their professional problems to the Journal, 2215 Constitution Ave., N. W., Washington 7, D. C., giving all pertinent details. Advisory service is provided by the A. Ph. A. library and technical staff and the Journal panel of technical consultants.

## SUN SCREENING CREAM

It will be appreciated if you will send me a formula for a sun screening cream or lotion.—R. D. S., N. Y.

The Ninth Edition of the National Formulary, page 529, includes a formula for a sun cream which is effective in preventing sunburn.

Drug and Cosmetic Industry, December, 1949, page 703, gives the following two formulas for lotions that may be used to prevent sunburn.

Menthyl salicylete		.11.5%
Alcohol		10 0%
Glyccrinc		5 0%
Water		73.25%
Perfume	•	0 25%

Dissolve the menthyl salicylate in alcohol, add perfume, glycerine and water, and filter.

A thicker lotion can be prepared from:

Quinine bisulfate		3	50%
Glycerine	•	5	00%
Gum tragacanth p	owder.	1	50%
Alcohol.		16	50%
Citric acid		0	75%
Water		72	25%
Perfume		0	50%

Mix the gum tragacanth powder with one half of the alcohol and add it to one half of the water. Dissolve the quinine bisulfate in the remainder of the alcohol and add the perfume. Dissolve the citric acid in the remainder of the water. Add the glyccrine to the citric acid solution, then all the quinine solution, and finally the mucilage. Mix well.

## PROPYLENEGLYCOL MONOLAURATE AND PELARGONIC ACID

We would be interested in receiving a source of supply of the following chemicals: Propyleneglycol monolaurate and petargonic acid.—H. T. B., Texas

Propyleneglycol monolaurate is available from Glyco Products, Inc., 230 King Street, Brooklyn, N. Y., and from Nopco Chemical Company, Logan and Davis Streets, Harrison, N. J. [We feel sure there are other manufacturers of this product also.]

Pelargonic acid is available from the Mathieson Company, Inc., East Rutherford, N. J., and from Emery Institute, Inc., 4206 Carew Tower, Cincinnati, Ohio. We believe that this is also available from Distillation Products Industries, Eastman Organic Chemicals Department, Rochester 3, N. Y.

## PRESCRIPTION INCOMPATIBILITY

Is it possible to compound the following prescription without precipitation?—L. W., N. Y.

Thiamine hydrochloride	10 gr.
Belladonna fluidextract	
Diluted hydrochloric acid	.6 drams
Caroid essence g.s. ad	

The addition of diluted hydrochloric acid to the essence of caroid is responsible for the precipitation that occurs. Not only does the hydrochloric acid cause precipitation but it also makes the pH so low as to cause decomposition of the papain contained in the essence of caroid and to hasten the decomposition of the thiamine.

If the prescription is compounded by leaving out the hydrochloric acid, the pH is about 4.5, which is suitable for stability of both the thiamine and the papain. Therefore, we recommend that you suggest to the physician that the hydrochloric acid be deleted from the prescription and administered separately.

## NEMBUTAL ELIXIR INCOMPATIBILITIES

We have been advised by Abbott Laboratories that the following drugs have been found to be incompatible with the company's new Nembutal Elivir: Potassium Bromide, Potassium Iodide, methananine. All of these drugs were originally listed in the literature as being compatible. Pharmacists should change their copies of this literature accordingly.

(Continued on Page 184)

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FROM THE SECRETARY'S DIARY
FOR FEBRUARY

1st Back in Washington after a hectic trip to Philadelphia yesterday, which started with forty minutes of intensive editorial work on the train between Washington and Baltimore, with faithful editorial assistant, Joanne Hobbs aiding and taking the work back to Washington. And now losing an hour by compulsory change of trains at Baltimore because of the pranks of "sick" railroad workers engaged in an unauthorized strike. So reached the annual Social Hygicae Day luncheon at the Ben Franklin Hotel in time to be introduced but not in time to be fed. But the conversation with Dr. Louis Laplace, Philadelphia County Medical Society president, at the head table was well worth the inconvenience, for he had much to say about Philadelphia pharmacists. Also a brief visit with Temple University's Pharmacy Dean Sprowls and then to meet Bernard Zerbe who came from New York to discuss joining A. Ph. A. editorial staff.

Today came the committee on the Hospital Pharmacy Institute program, including Leonard Goudy of the American Hospital Association, I. T. Reamer, Don Francke, A. P. Lauve, Valerie Armbruster and Gloria Niemeyer of the A. S. H. P. A fine program for the 1951 Institute to be held at New Orlcans June 11-15 was arranged.

This day attending a conference called by Congressman Durham in his office to discuss proposed changes in the Durham-Humphrey Bill of the 81st Congress. And there came James Hoge, Leslie Harrop and Charles Wesley Dunn to speak for the manufacturers, George Frates and Herman Waller to speak for the N. A. R. D. and Hugo Schaefer and the writer to represent A. Ph. A. There was general agreement that the original legislation requires changing, and Mr. Durham asked each group to submit their suggestions as soon as possible.

Lecturing this morning to the pharmacy students of George Washington University on the organizational structure of American pharmacy and in the afternoon to the Senate Committee on Labor to hear the report of Dr. Dean Clark and his associates on existing

medical care plans. Later to chat with Congressman Durham on military and atomic energy projects. Yesterday at lunch with Paul Briggs reviewing navy pharmacy activities and later a conference with A. S. II. A. Washington office representative, Eleanor Shenehon.

Off on the 8:00 a.m. train for New York to confer at luncheon with Dallas Johnson, Dr. Tom Rowe, Dr. Deforcst and Mr. Rhoades of the Arthritis and Rheumatism Foundation at the Chemists' Club about the continuing program of health education so eagerly sought by many pharmacists. Later a conference with Drs. Schaefer and Swain on A. Ph. A. finances.

Celebrating Washington's Birthday at headquarters with Tom Rowe, Bert Mull, Walter Chase, Jean Henderson and Frank Delgado of the Committee on Public Relations and staff members Zerbe and Crowl, by planning for 1951 and 1952 National Pharmacy Week. This fine committee gives unstintingly of its time and talents to make a go of our health and public relations program and it has been very successful. It was decided to set the last full week of October each year for the observance of National Pharmacy Week in the future.

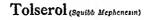
Today a long session with the Advisory Committee on Medical Manpower headed by Dr. Howard Rusk, associate editor of the New York Times. This group advises the President, Sclective Service and the National Security Resources Board on medical and allied manpower problems. The barrage of questions gave evidence of their keen interest in the problems of pharmacy manpower.

The daily routine broken by a pleasant luncheon discussion at which Dr. Samuel Goldstein, formerly of the Maryland State Board of Health, was welcomed to the staff as chief chemist and acting director of the A. Ph. A. laboratory, and Dr. Albert Mattocks, whom he succeeds, was extended best wishes as he leaves to cast his lot with industry.

To New York on the early morning train and arriving at the Brooklyn College of Pharmacy just in time to address the student body on "Opportunities in Pharmacy," under the auspices of the A. PH. A. Student Branch, with Faculty Adviser Prof. Fonda doing the honors. Next, to St. John's University to address the student body on the same subject and to meet Father Flynn, president of the university, who also spoke briefly to the assembled classes. Dean Dandreau was most gracious as always. Later to St. Mary's Hospital to confer with Sister Etheldreda, chairman of the A. S. H. P. Committee on Minimum Standards for Hospital Pharmacies and Pharmacy Internships. Here one enjoys perfect hospitality and sees a splendidly equipped and well-kept pharmacy conducted by an excellent pharmacist.

"...the only drug we have seen
that allays anxiety without
clouding consciousness"

J.A M.A 140 672 (June 25) 1949



- · to alleviate pronounced anxiety and tension
- as an adjunct in the treatment of chronic alcoholics

#### DOSAGE

## In anxiety tension states:

As little as 0 5 Gm, given orally every few hours, has produced a good response. However, for optimum effect, 0 75 Gm or more is given several times a day.

## As an adjunct in the treatment of chronic alcoholics:

As much as 3 Gm orally every four hours has been found useful in the acute stage. This dosage is reduced when the patient becomes more manageable. (If Tolserol is given too soon after the patient drank alcohol, the toxic effect of the alcohol may be potentiated. For this reason, Tolserol should not be administered until six hours have elapsed since the patient drank alcohol.)

Tablets, 0 5 Gm. 0 25 Gm. Capsules, 0 25 Gm. Elixir, 0 1 Gm per cc., Solution, 2% (intravenous)

# Tolserol (Squibb Mephenesin)

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OLSEROL SA FEGISTERED TRADEMARK OF E R SQUIRE & SONS

## Bentonite Tar Ointments

## Formula and Preparation

By DONALD M. SKAUEN\*

OAL tar preparations have been used extensively in relief of various skin disorders for many years. Crude coal tar, coal tar solutions, and coal tar distillates have all found favor in certain areas for numerous dermatologic conditions.

Combes (1), in advancing a low-temperature retort crude coal tar formula, makes the following statement: "Crude coal tar is probably the most useful of all topical remedies but, at the same time, one of the most disagreeable, both from the esthetic and cosmetic standpoint." This statement summarizes the experience of many individuals with respect to crude coal tar and its preparations.

Lewis Webb Hill, M.D., Chief of the Allergy Division, The Children's Medical Center, Boston, Mass., had used crude coal tar and solutions of erude coal tar for many years and desired ointments containing these ingredients which would satisfy cosmetic appeal and also have therapeutic value. The formulas described in this paper were developed at Dr Hill's request.

## Experimental

The initial request was for an ointment containing about 16 per cent crude coal tar solution and 50 pcr cent zinc oxide paste.

In order to incorporate such a high percentage of liquid, it was necessary to find an agent to thicken, adsorb, or suspend the crude coal tar solution.

Various concentrations of bentonite pastes were prepared and a satisfactory product was finally dcveloped with the following formula:

#### Bentonite Tar Ointment No. 1

Coal tar solution		16 сс.
Bentonitc		8 Gm.
Distilled water		18 сс.
Vanishing cream		8 Gm.
Zine oxide paste N. F.		50 Gm.

Mix the coal tar solution with the water, add the bentonite, and stir until thick. Transfer to an

\*Assistant Professor of Pharmacy, University of Connecticut, College of Pharmacy, New Haven, Conn.

ointment slab and levigate to a smooth paste. Incorporate the vanishing cream and the zine oxide paste by levigation. Store in nonmetallic. well-closed containers.

The coal tar solution was made from Good's Crude Coal Tar. In the manufacture of the solution, 75 per cent alcohol was employed in preference to the 95 per cent alcohol as directed in the National Formulary. The resulting product is less irritating. more easily suspended in aqueous liquids and, with therapeutic efficiency, equal to the National Formulary product.

The bentonite used makes a paste free from grit and irritating particles.2

The vanishing cream was developed by DiCieco (2) and was most satisfactory. The formula is as follows:

#### Vanishing Cream

White petrolatum .		225	Gın.
Paraffin		100	Gm.
Liquid petrolatum,	light .	.412	ec.
Diglycol stearate .	,	325	Gm.
Glycerin		. 75	ce.
Distilled water (pres	erved with Buto-		
ben³)		1400	CC.

Bentonite Tar Ointment No. 1 has been used clinically for more than eight years with favorable results in certain skin conditions.

In addition to Bentonite Tar Ointment No. 1, three other Bentonite Tar Ointments were developed to assist the Allergy Department in its work. The base for Bentonite Tar Ointment No. 1 proved to be so satisfactory that it was used for the other three ointments. The changes, which consist of substituting various strengths of crude coal tar for coal tar solution, are given in Table 1.

#### (Continued on page 176)

<sup>1</sup> James Good Co., 2107 Susquehanna Ave., Philadelphia 25, Pa B C. Volclay, American Colloid Co., 363 W. Superior St , Chicago 10, Ill Butoben, Merck and Co., Ralıway, N. J.

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EXCHANGE

Products Department, Ontario, Calif.

BENTONITE • • • • • • • • • • • • from page 174

		Ointments			
Ingredients	No. 1	No. 2	No. 3	No. 4	
Coal Tar Solution Crude Coal	16 cc.				
Tar Bentonite Distilled	8 Gm.	2 Gm. 8 Gm.	5 Gm. 8 Gm.	10 Gm. 8 Gm.	
Water Vanishing	18 cc	32 cc.	29 cc.	21 cc	
Cream Zinc Oxide	8 Gm.	8 Gm.	8 Gin.	8 Gm.	
Pastc	50 Gm.	50 Gm.	50 Gm.	50 Gm.	

To manufacture ointments 2, 3, and 4, a paste is first made with the bentonite and water. This is then transferred to an ointment slab and levigated to a smooth paste. The crude coal tar is then in-

corporated followed by the vanishing cream and the zine oxide paste. Store in nonmetallic, well-closed containers

Bentonite Tar Ointments Nos. 2, 3, and 4 have been used clinically for more than six years with considerable success.

## Summary and Conclusions

- 1. A scries of coal tar bontonite ointments has been prepared.
- 2. Methods of manufacture have been developed, improved, and reported.
- 3. Bentonite pastes are satisfactory agents for incorporation of crude coal tar and coal tar solutions.
- 4. Clinical trials of a scrics of four ointments for periods ranging up to eight years indicate effectiveness in treating certain allergic skin conditions.

#### REFERENCES

(1) Combes, F. C., Arch Dermalol and Syphilol., 56: 583 (1917)
(2) DiCucco, G. Personal communication to the author

## PHARMACISTS IN JAPAN

One of the recommendations of the AMERICAN PHARMACEUTICAL ASSOCIATION'S Mission to Japan in 1949, dealt with the functional separation of medicine and pharmacy. It was pointed out that physicians should diagnose and prescribe and that pharmacists should compound and dispense drugs and medicine. In commenting on the Mission's work, Dr. Tatsuo Kariyone, president of the Japanese Pharmaceutical Association, said that this recommendation was probably the most important one made by the Mission.

In a recent communication, Japanese pharmacist Masumai Arai reports that the separation has not yet been effected. He points out, however, that General Sams, chief of the Public Health and Welfare Section of SCAP, is taking steps to bring ahout the separation of functions.

In tracing the social position of pharmacists in his country, Mr. Arai states that with the advent of Western civilization in Japan, pharmacy was legally separated from medical practice. However, the number of pharmacists was so small that physicians soon lapsed into the old custom of dispensing. Numerous attempts have been made in the National Diet to separate dispensing from medical practice, hut proposed legislation on the subject has always been yoted down.

Mr. Arai also indicates that pharmacists occupy a lower position in the social scale than do physicians. "People respect a doctor by calling him with the honorary appellation of *Sensai* (superior), hut they do not call a pharmacist so."

Mr. Arai, who is a graduate of the Kumamoto Pharmaceutical College, reports that few pharmacy university graduates can find an adequate living outside of the pharmaceutical and chemical industries. Mr. Arai, now working as a translator, was previously engaged in research in cellulose chemistry.

## AUGUSTUS C. TAYLOR



Dr. Augustus C. Taylor, dean of pharmacists of Washington, D. C., and former honorary president of the American Pharmaceutical Association, died January 12 in Washington. He was 83 years old.

A life member of the A. PH. A., Dr. Taylor had been active in many phases

of pharmacy. He was one of the original delegates to the National Drug Trade Conference and had served as vice-chairman of that group for several years. He helped draft the Pure Food and Drug and the Harrison Anti-Narcotic Acts, and 'had assisted in writing the pharmaceutical law of the District of Columbia. Prior to his resignation in 1949, he had served as a member of the District's Board of Pharmacy for 45 years. In recognition of that service, Washington pharmacists presented him with an Award of Merit when he resigned, due to advancing years, in August, 1949.

In addition to heing president and charter member of the District of Columbia Board of Pharmacy, Dr. Taylor had also been active in many other local and national pharmaceutical groups. For many years he served as president, and later secretary, of the District's Veteran's Druggist Association, one of the more active groups of this kind in the country. A testimonial dinner was held in his honor in January, 1948, shortly after he resigned the post of secretary.

A native of Detroit, he came to Washington in 1878. Since retiring from active store management in 1925, he had served as a consultant to the Peoples Drug Company.

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### ANTIBIOTICS AID BRUCELLOSIS

Excellent results were obtained in thirty-nine cases of acute brucellosis in which either terramycin hydrochloride, chloromycetin, or aureomycin was used. The clinical trials, earried out in Cairo, Egypt, by Drs John H. Killough, Gordon B. Magill, and Richard C. Smith of the U. S. Naval Medical Research Unit in cooperation with the Egyptian Ministry of Health, are reported in the February 24th issue of the Journal of the American Medical Association.

In all eases, there was a rapid reduction in fever, usually disappearing within three to five days after initiation of therapy. Alleviation of other symptoms was slightly less rapid Relapses were common, occurring in twenty-seven eases, but re-treatment with the antibiotics brought about cures. The average number of days treatment was approximately 13 days.

Terrainycin produced excellent results in sixteen cases, and indications are that this drug ranks equally well with eliloromycetin and aureomycin. Terramycin appeared to shorten the period of fever more than the other two drugs.

Aureomycin, used in eleven cases, was the most toxic of the three, causing frequent gastrie disturbances. For this reason, terramycin and chloromycetin proved to be more acceptable from the patient's viewpoint.

## SALARY LEVELS FOR SCIENTISTS

Government and private industry lead the field in top salary levels for scientists, according to recent findings made by the Department of Labor's Bureau of Labor Statistics and the Department of Defense.

Earnings are highest in private industry for the entire group of scientists in every scientific field, and in every region of the country. Salary levels in colleges and universities are considerably lower.

One of the main purposes of the survey was to provide a roster of outstanding individuals in every phase of natural science. About two-thirds of the nation's Ph.D.'s in the natural sciences were covered by the study. The small proportion of the scientists in the survey who did not have doctorates usually held either master's or M.D. degrees.

For P·D's in all specialties taken together, the median in private industry was \$7070 a year, in gevernment \$6280, and in education \$4860. The engineers had the highest median salary and the biologists the lowest in every type of employment. In addition, biologists working for business firms tended to earn more than the engineers on the college campus.

Supplementary professional incomes were reported by a much larger proportion of the educators than of the scientists employed in either private industry or government However, this extra income by no means made up the difference in salary levels.

## APPLICATION FOR ACTIVE MEMBERSHIP IN THE AMERICAN PHARMACEUTICAL ASSOCIATION

Approving of its objectives, I hereby apply for active membership in the American Pharmaceutical Association. I enclose \$10 to cover annual dues for 12 months beginning with the month following my election to membership. Membership includes subscription to the Journal of the A. Ph. A. which is published monthly in two editions, "Practical Pharmacy" and "Scientific." Subscription to the Journal for non-members is \$4 for each Edition or \$7 combined. Members of the A. Ph. A receive a 50% discount on the regular subscription rate of each Edition. Therefore \$2 for each edition (total \$4) is allocated for subscription to the Journal.

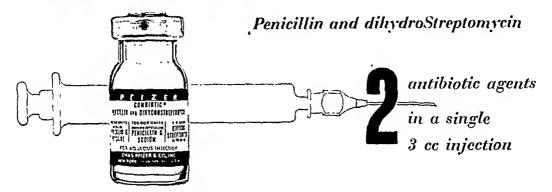
ounds, potent of the design, and			
Name in Full (Miss-Mr,-Mrs.)			
Street and No.			
City	Zone	State	
Date of Birth	_State Assn mem	ber in	
Graduate of	Year	Degrees	
Licensed Pharmacist in (states)			
Please indicate by check mark below your el	assification(s) accor	rding to present employment:	
Retail Pharmacist,Hospital Pharmacist,Government Pharmacist;Teacher;Wholesaler,Manufacturer,Representative;Research or Control Chemist;Association Official;Student,Other			
Signature of Applicant			
This application is endorsed by the following men	nbers of the Ameri	CAN PHARMACEUTI CAL ASSOCIATION	
Name	Name		
Please send this application a ROBERT P. FISCHELIS, Secret			

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composition: Each vial provides, for intramuscular injection, the complementary actions of:

crystalline procaine penicillin G 300,000 units buffered crystalline sodium penicillin G 100,000 units dihydrostreptomycin (as the sulfate) 1 Gm.

indications: For therapy of mixed bacterial infections caused by Gram-positive and Gram-negative organisms, such as urinary tract infections, upper respiratory tract infections, selected cases of bacterial endocarditis; and for prophylactic use in surgery.

advantages: Easily prepared by the addition of sterile aqueous diluent for an injection of only 3 cc., affording prompt and prolonged therapeutic action.

dosage: I single injection of 3 cc. (I vial) once or twice daily depending on the nature and severity of the infection.

Combiotic P-S is now promoted to physicians by direct mail, sampling, journal advertising, and a large staff of carefully selected and well-trained Professional Service Representatives. To give your physicians prompt service, order from your wholesaler today—\$1.15 per vial.





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## U. S. FOOD AND DRUG ADMINISTRATION

... a monthly summary of the terminated cases of the U.S. Food and Drug Administration in fields of interest to the pharmacist...

## COURT JUDGMENTS—JANUARY, 1951

#### ADULTERATED AND MISBRANDED DRUGS AND DEVICES Locality Product Violation and Sentence Jacksonville, Fla. Pan-Tone (a proprietary drug remedy) Shipped misbranded with false and misleading claims. Sentence: firm to bring labeling of product into full compliance with the Food, Drug and Cosmetic Aet within 1 year P. M. Massager device Syraeuse, Ind. Shipped misbranded with false and misleading claims. Sentence: 1 defendant fined \$100 and court costs Peoria, Ill. Elcetreat devices Shipped misbranded with false and misleading therapeutie elaims. Sentence deferred in September; 1 defendant found guilty under new trial in January; fined \$1000 and court eosts. Total \$2300

#### OVER-THE-COUNTER SALES-PRESCRIPTION DRUGS

Locality	Product	Violation and Sentence
Detroit, Mich.	Barbiturates; Amphetamincs	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$200
Detroit, Mich.	Barbiturates	Sold without physicians' prescriptions. Sen tence: 1 defendant fined \$200
Detroit, Mich.	Barbiturates; Amphetamines	Sold without physicians' prescriptions. Sen tence: 1 defendant fined \$200
Portales, N. Mex.	Amphetamines	Sold without physicians' prescriptions. Sentence: 2 defendants fined \$100 each
Portales, N. Mcx.	Amphetamines	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$200
Portales, N. Mcx.	Barbiturates; Amphetamines	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$200

## **BOOK REVIEW**

The Slory of California Pharmacy. By George Griffenhagen. American Institute of the History of Pharmacy, Madison, Wis., in ecoperation with Pacific Drug Review, 1950, 58 pp.

The Slory of California Pharmacy is pleasant reading. Prompted by the centennial anniversary of California's statehood, Mr. Griffenhagen has produced a well-organized and well-written work which includes not only the last century of California pharmacy, but an interesting account of pharmacy as practiced by the Indians and later, the Spaniards.

The discovery of gold in 1848 was, of course, responsible for a sudden, mass migration to California.

The subsequent impact on pharmacy, the real birth of modern pharmacy in California, is described well. The growth of pharmacy is traced by accounts of pioneer pharmacists, the beginnings of pharmaceutical associations and publications, the establishment of the first wholesale pharmaceutical houses, and the advent of the chain store systems.

A heartening note to historians and students of history is contained in the Foreword written by Dr. George Urdang, Director of the American Institute of the History of Pharmaey, who states that "the Institute has decided to...initiate a series of [similar] booklets until all states of the Union have thus been covered."

Vol. XII, No. 3

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(Testosterone Propionate U.S.P.)

## PROLUTON® buccal tablets

(Progesterone U.S.P.)

## PROGYNON® buccal tablets

(Estradiol U.S.P.)

## CORTATE® buccal tablets

(Desoxycorticosterone Acetate U.S.P.)

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Buccal Tablets provide a means for parenteral therapy without injections. Incorporated in the unique solid solvent, Polyhydrol,\* which is soluble in

saliva, the hormones in Schering's buccal tablets are readily absorbed through the oral mucous membranes into the blood

stream when the tablets are placed beneath the tongue or against

\*TM. the inner or buccal surface of the cheek.

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STUDENT BRANCHES

MEMBERS of the Howard College Branch met February 1 to hear Mr. Homer Hollifield, president of the Birningham Retail Druggists Association and one of the civil defense directors in Birmingham, discuss "Civil Defense."

A newspaper by and for students of pharmacy at the University of Wisconsin is now being issued by the Student Branch. The first edition was published in November, 1950, and it is expected that the paper will become a regular project of the Student Branch. Recently elected officers who will serve the Branch from February, 1951, to February, 1952, are: Roger Fitzgerald, president; Lloyd Kennon, vice-president; Donna DeGroff, secretary; and Tom Winters, treasurer.

Mr. J. Murray, Parke, Davis & Co., was guest speaker at the January 12 meeting of the St. John's University Branch. Mr. Murray's topic was "Detailing."

William W. Mickle has been elected president of the University of Nebraska Branch. Other new officers are: Gale E. Demaree, vice-president; Janiee E. Teter, secretary; and Wayne E. Bailey, treasurer.

The State University of Iowa Student Branch held its regular meeting on February 14. Dr. Nolf of the Zoology Department gave a talk on "Trichinosis" and illustrated it with a sound film made at the University.

A student branch conference, organized along the lines of a formal convention meeting, will be conducted at Rutgers University College of Pharmacy, Newark, N. J., April 7. The University student branch is sponsoring the conference.

Student Branches of the following colleges and universities have been invited to participate: Brooklyn College of Pharmacy, St. John's University, University of Connecticut, Fordham University, Temple University, Philadelphia College of Pharmacy and Science, Columbia University, and Rutgers University.

Each student branch has been assigned a topic for discussion and each representative will be allotted fifteen minutes for presentation of his paper during the morning sessions. The afternoon sessions will be given over to a panel discussion, with questions being answered from the floor of the assembly.

#### LOCAL BRANCHES

PHARMACISTS and other interested persons are nrged to attend the fourth annual Spring Conference of the Pittsburgh Branch, April 4, Mellon Institute. The annual Branch banquet will be held in the evening at the University Club. Interested parties may contact William F. Heidenreich, 96 Lougue Vue Drive, Mt. Lebanon, for further information.

The January 30 meeting of the Michigan Branch held in the New Veterans Memorial Building, Detroit, featured Dr. Lester J. Coleman, Upjohn Company, as guest speaker. Dr. Coleman spoke on the discovery, development, manufacture, and clinical applications of Heparin.

New officers for the 1951-1952 season were elected at this meeting. They are: Donald F. Stocks, president; Albert R. Pisa, vice-president; Gordon F. Goyetter, Jr., secretary; and E. A. McArthur, treasurer.

John C. Krants, Ph.D., professor of pharmacology, University of Maryland School of Medicine, discussed "Newer Developments in Autonomic Drugs," at the February 8 dinner-meeting of the Philadelphia Branch.

The sixty-second meeting of the Northwestern Ohio Branch was held January 31, in Toledo. John B. Whidden, of Merck & Co., discussed "Development of Cortone—What It Is and How It Came to Be."

"Modern Therapeutie Trends" was the title of a talk given by Dr. Lloyd C. Miller, Director of U. S. P. Revision Committee, at the Northern New Jersey Branch meeting, February 13.

Members of the New York Brauch met at St. John's University in Brooklyn, February 19, and heard two guest speakers from Chas. Pfizer & Company. Dr. W. Alan Wright spoke on "Antibioties to Be Used—Not Confused," and Mr. Fred C. Sands discussed "Earth-mold Turned to Gold."

Chicago Branch members heard Dr. M. J. Schiffrin, of Hoffmann-La Roche, speak on "Developmental Pharmacology" at the February 19 meeting, University of Illinois. Dr. Schiffrin's subject dealt with the synthesis of new compounds by the chemist, preliminary screening in animals by the pharmacologist, and their subsequent clinical trial.

## COMMUNICABLE DISEASE, DEATH RATES DECLINE

During 1950 the incidence of the communicable diseases reported weekly by states was generally favorable in comparison with 1949 or the 5-year (1945-49) median, according to the United States Public Health Service.

Three diseases for which intensive preventive or public health measures are available and are widely used, namely diphtheria, smallpox, and the typhoid-paratyphoid group, were reported in smaller numbers in 1950 as compared with 1949 and the 5-year median. However, whooping cough, a disease against which immunization is extensively used, was reported in larger numbers. The total numbers of cases of diphtheria (6,035), smallpox (34), and typhoid and paratyphoid fever (3,424) for the 52 weeks ended December 30, 1950, were gratifyingly low when compared with some previous years.

In 1930, a total of 66,576 cases of diphtheria, 48,907 cases of smallpox, and 27,201 cases of typhoid and paratyphoid fever was reported. In 1940, the totals were 15,536, 2,795, and 9,809, respectively, for the three diseases. Whooping cough has shown no comparable decrease, 116,914 cases being reported in 1930, 183,866 in 1940, and 118,797 in 1950.

Measles, poliomyelitis, Rocky Mountain spotted fever, scarlet fever, and tularcmia were reported in fewer numbers in 1950 as compared with 1949.

The total number of influenza cases in 1950 was greater than in 1949 because of epidemic prevalence in many parts of the country. Infectious encephalitis, meningococcal meningitis, pneumonia, and rabies in animals were reported in slightly greater numbers in 1950 as compared with 1949.

The death rate for females is decreasing more rapidly than the rate for males, according to figures based on estimates of 1949 mortality statistics. Between 1940 and 1949, the death rate for the female population decreased 13 per cent, while the rate for males decreased 7 per cent.

The death rate for every age group has been declining since 1940, the greatest relative decreases occurring in the rates for the younger ages, the smallest in the older ages.

The maternal death rate of the United States has been pushed slightly below the irreducible minimum of one per 1,000 live births, according to American Medical Association. This is the first time in history that a large nation has achieved this record.

The new record was set in 1949, based on preliminary reports. In 1948, the previous low record, 1.2 maternal deaths per 1,000 live births occurred; in 1933, 6.2.

## ESSENTIAL OILS IN LATIN AMERICA

Dr. Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., and author of *The Essential Oils*, who recently completed a four months' trip to the West Indies, Mexico, and Central and South America is convinced that most of the essential oils and spices formerly imported from the tropical Far Eastern countries can gradually be produced in the tropical regions of South and Central America, providing organized and intelligent research is carried out in suitable localities.

In Brazil, a good grade of oil patchouly is undergoing experimentation, as well as experiments with geranium, cassia, and cinnamon. Large quantities of eucalyptus citriodora and oil of mint are already being produced.

Guatemala is producing about 1,000,000 pounds annually of oil of citronella, while the lemongrass crop is about 200,000 pounds.

## HISTORY OF U.S. P. H.S. COVERS YEARS 1798-1950

Soon to be available at book stores will be the United States Public Health Service, 1798-1950, written by Dr. Ralph C. Williams, assistant surgeon general of the United States Public Health Service and published by the Commissioned Officers Association of the Service.

As the title infers, the volume is a story of the evolution and development of public health work in the United States. The control of epidemics, investigation of disease, scientific discoveries, and in other important matters dealing with the life and health of this nation are recorded, together with figures and dates.

Dr. Williams is eminently qualified as a bistorian of the Public Health Service. He has spent thirty-seven years in many types of public health activities, and has had access to official records as well as valuable assistance from many in public health.

## Pharmacy Biology Bacteriology Chemistry

offer exceptional apportunities today far interesting careers to young men and wammen wha complete B.Sc. degree courses in these fields. Graduate studies leading to M.Sc. and D.Sc. degrees affered. Write far catalag.



## Philadelphia College of Pharmacy and Science

Founded in 1821. Located at 43rd St., Wandland and Kingsessing Aves., Philadelphia 4, Penna.

## STATE ASSOCIATIONS START CIVIL DEFENSE . . . . . . . from page 168

then gave them to his customers. Despite the expense involved, more than 500,000 were purchased by pharmacists and distributed within the first week. The material on these cards was taken verbatim, from "Survival Under Atomic Attack," the official U. S. Government booklet, thus insuring complete authenticity for the statements made.

Mayor Thomas D'Alesandro received the first eard, and praised the pharmacists of the state for their intense public interest. "Such activity as this will go far toward educating the people to the dangers of attack, and instructing them on how to act in the event of one." Additional publicity, both for the eampaign and for pharmacy was given over every Baltimore radio and television station. So widespread was this publicity that the association has had requests for the card from states in other sections of the country, as well as from other parts of the state where distribution has not as yet been made.

Supplementing this educational campaign, the state association is also sponsoring special refresher courses on "The Dangers of Atomic Warfare" in various localities throughout the state. These courses will be held at such times, and in such places as to make them available to practically every pharmaeist in Maryland.

Reichlin's committee moved fast in implementing the suggestions made in its first report, presented late in 1950. With the distribution of the cards, only part of the plan was put into action. The committee also urged that the pharmacist become the fifth man in a health tcam composing doctors, dentists, nurses and veterinarians. The pharmacist will supervise the medical depots spotted at strategic points around the state and assist the others in the health team in the proper utilization of available drugs. Since pharmacies are limited in storage space, and rarely carry a large supply of "major emergency" drugs and medicinals, the committee suggested to the state civil defense authorities that special supply depots be created.

As a first test of this "health team plan" pharmaeists were assigned as observers to "fire drills" sponsored by Baltimore, and the towns of Towson, Catonsville, Essex and Reisterstown. The state association is currently appointing a pharmaeist in each county to represent Pharmaey in civil defense affairs at the local level.

Because of the importance of the activity, both Maryland and New York pharmacentical leaders have made their programs available to other states, should these states desire to set up similar plans. The booklet, "Survival Under Atomic Attack," mentioned previously as the source of the cards distributed in Maryland, also contains much information which would be valuable in the establishment of a pharmaceutical program. Copies of this 32-page pamphlet may be obtained, for 10¢, from the U. S. Government Printing Office, Washington 25, D. C. All of it, or any part, may be reprinted without special permission.

#### PRESCRIPTION INFORMATION SERVICE · · · · · · · · · from page 171

## SOLUTION FOR STORAGE OF METALLIC INSTRUMENTS

Would you please supply me with information regarding a solution that can be used for the storage of metallic instruments.—L. A., Virgin Islands

Any solution for this purpose will in time cause corrosion unless a rust inhibitor is used. New and Nonofficial Remedies, 1950, page 111 states:

"It (benzalkonium chloride U. S. P.—Zephiran Chloride, Winthrop-Stearns) is also used to preserve the sterility of surgical instruments and rubber articles during storage. To prevent corrosion 0.5 per cent sodium nitrite is added to benzalkonium chloride for the storage of metallic instruments."

For sterile storage of metallic instruments and rubber articles a solution of 1 in 1000 concentration is generally employed. The sodium nitrite is added as a rust inhibitor.

George Phillips of the University of Michigan Hospital Pharmacy in Ann Arbor suggests the formula reproduced below, in an article appearing in the October, 1950, issue of the Bulletin of the American Society of Hospital Pharmacists:

#### "Zephiran Germicidal Solution

Isopropanol, 99%	9,000 ec.
Methanol, technical	
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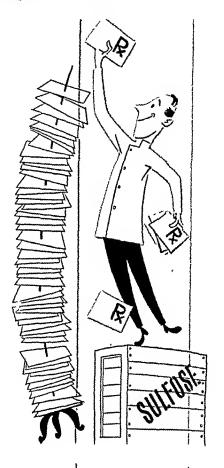
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#### ASSOCIATIONS



Four registered pharmacists, each with fifty or more years of service in pharmacy, were presented with gold certificates by the Louisiana State Pharmaceutical Association, at a meeting held January 25. The

recipients are: G. O. Bergeron, Eugene H. Daste, S. M. Gutmann, and Claude J. Marquer. William August Worner was presented with an honorary gold certificate in recognition of his contributions to retail pliarmacy.

The Ohio Valley Druggists Association recently honored Harry F. Decker, president, and other officers, at an Installation Dinner Dance, February 1, in Cincinnati.

Owners of pharmacies in Arkansas now operating without a registered pharmacist, were warned either to employ one or cease to sell drugs. This warning came at the two-day sessions of the Arkansas Pharmaceutical Association Convention held January 16 and 17 in Little Rock. 1951 officers who were installed are: Wade Willis, Magnolia, president; A. L. Waddle, Harrisburg, first vice-president; H. B. Crosby, Batesville, second vice-president; O. L. Dailey, Jr., Little Rock, secretary-manager; and Oscar Nichols, Little Rock, treasurer.

February 2 was the date of the midwinter pharmaceutical conference sponsored by the Utah Pharmaceutical Association in Salt Lake City. One of the main purposes of this meeting was to prepare pharmacists for meeting and dealing with an atomic bomb attack. J. B. Heinz, vice-president of the American College of Apothecaries, was one of the chief speakers. His subject was "The Responsibility of the Pharmacist in Preparing for Atomic Bombings." Mr. Heinz is a past-president of the Utah Pharmaceutical Association and a member of the Council of the American Pharmaceutical Association.

The District of Columbia Pharmaceutical Association combined business with civil defense instruction at the January 31 meeting. Inspector John E. Fondahl, acting director, D. C. Civil De-

fense, outlined the important role that pharmacy must play in the District of Columbia civilian defense effort.

#### COLLEGES



Fordham University College of Pharmacy began, in February, a special course to meet the need for trained laboratory experts in the event of an atomic attack. Special laboratory technique is being cov-

ered for training in methods of applying certain drugs used in the treatment of atomic injuries.

In addition to the special course on laboratory technique, the College of Pharmacy is also training American Red Cross first aid instructors. Three groups, totaling 150 instructors, have already finished their training. (See page 168.)

Virginia State Schator Lloyd C. Bird, graduate of the Medical College of Virginia School of Pharmacy, will receive the honorary degree of Doctor of Laws at the June commencement. Mis-Nora Spencer Hamner, graduate of the School of Nursing, will receive the honorary degree of Master of Science in Nursing.

March 7 opened the first of the Seventh Annual Seminar Lectures for pharmacists, conducted jointly by the Rutgers University College of Pharmacy and the Northern New Jersey Branch. Dates of lectures and subjects are: March 7, "Modern Antirheumatics"; March 14, "Clinical Evaluation of Antianemia Factors"; March 21, "Diabetic Information"; and March 28, "Injectables."

At a special convocation of the student body of the University of Connecticut College of Pharmacy held on February 7, Dr. Albert N. Jorgensen, President of the University, spoke on "The University's Responsibility in a National Crisis."

Fifty-five pharmacy students of Washington State College recently participated in an educational tour of midwestern cities and pharmaceutical firms. The students left the college February 23 and visited Eli Lilly & Company in Indianapolis, Parke, Davis & Co. in Detroit, and Abbott Laboratories in Chicago. They returned to the campus on March 5.

The University of Connecticut Executive Committee of the Graduate School has authorized the implementation of a program for the Ph.D. degree in pharmacy. The College of Pharmacy will offer programs in pharmacy, pharmaceutical chemistry, and pharmacognosy leading to the Ph.D. degree.

The Pharmacy Alumni Association of the University of Oklahoma sponsored a Marketing Seminar, February 19 and 20, for retail druggists.

(Continued on Page 188)

announcing:

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'Resodec'\* is a revolutionary new development in the management of congestive heart failure.

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## BRIEFLY NOTED • • • • • from page 186

Meeting in January, the Oregon State Board of Higher Education gave formal approval to a proposed five-year program of study leading to the baccalaureate degree in pharmacy at Oregon State College. The program will become effective at the end of the current academic year.

A new research project on dosage forms for steroids lias been established at the University of Wisconsin College of Pharmacy with the aid of a \$1,500 grant from Chemical Specialties Company of New York. Work will be under the direction of Professor Louis J. Busse.

The Yale University School of Nursing announced it will almost double its entering class in the fall of 1951 to help meet the increasing demand for nurses for military and civilian service. Yale is the only school of Nursing which requires the bachelor's degree for entrance.

#### **MANUFACTURERS**



Voluntary hospital and medical care plans were upheld as a bulwark for "preserving our American way of life" by Dr. Theodore G. Klumpp president of Winthrop-Stearns Inc., in addressing a national meet-

ing of the Blue Cross and Blue Shield Commissions on February 1, in Chicago.

C. Mahlon Kline, president of Smith, Kline & French Laboratorics, was named recipient of the Procter Medal, presented by the Philadelphia Drug Exchange at its 90th annual dinner, February 1. Mr. Kline received the medal for "outstanding service in the advancement of the pharmaceutical arts."

Work is nearing completion on the latest addition to the Eli Lilly Company research building, Indianapolis, which will provide an additional 45,000 square feet of working space. Much of the new area will be allotted to the division of biochemistry and the organic chemical division.

Maxwell Wilbur Becton, chairman of the board of Becton, Dickinson and Company, died recently at his Rutherford, N. J., home at the age of 82.

Frank W. Moudry, 1950 president of the National Association of Retail Druggists, has been appointed to the E. R. Squibb & Sons Advisory Council for a four-year term.

The Borden Company Foundation recently issued its annual directory on award recipients. During 1950, nine American scientists were presented Borden awards of a gold medal and \$1,000. Since establishment of the awards in 1936, ninety presentations have been made.

## Personnel Changes—

Marvin R. Thompson, Inc.—George H. Clautice has been appointed vice-president. Bristol-Myers Company-William M. Bristol, III, manager of the New Jersey plant, is the new vice-president in charge of the Products Division. Marcelle Cosmetics, Inc.—Douglas Atlas was recently named vice-president, assisting the president in the direction of sales and management. Mallinckrodt Chemical Works-Robertson B. Clark, formerly with Clark Drug Co. and Cutter Laboratories, has joined the executive sales staff. George A. Breon & Co.-B. C. Henriques has been promoted from sales representative to district manager of Arizona and California. E. S. Miller Laboratories-Ralph A. Adam has been appointed central division manager . . . Russell S. Grube will manage the Northern Pacific States division . . . Clyde F. Schanm is new manager for the Southern Pacific States division . . . Dale H. Larson will head the Southwestern division. Transandino Company-Frank Sevigne is now laboratory technical director. Mr. Sevigne succeeds George I. Dundas, who was promoted to the vice-presidency of Transandino and also Gill, Dundas, and Company, a newly formed organization devoted especially to consultative and distributive service for anesthesiology and allied fields. Schenley Laboratories-Major General Hugh J. Casey, chief engineer for General MacArthur during the Pacific campaigns of World War II, has been named assistant to the president . . . A. C. Emelin has been elected vice-president in charge of sales operations . . . Jesse C. Fishel has joined the firm as an assistant to the president. Abbott Laboratories-Emil M. Scher, with the company for the past thirty-one years, will manage the midwestern division. Commercial Solvents Corporation-Sydney T. Ellis has been appointed assistant to the president. E. R. Squibb & Sons-Dr. Richard Donovick has been appointed director of the division of microbiology in the New Brunswick, N. J., Research and Development Laboratories. Wyeth, Inc.—Edwin G. Holliday has been appointed medical service representative. Armour and Company-Victor Conquest, who has headed Armour research for twenty years, was made vicepresident in charge of research . . . Thomas E. Hicks, named general manager last August, was promoted to vice-president in charge of the laboratories.

Boots Pure Drug Company, Ltd., established in England in 1888 and said to be the largest manufacturing drug firm in the British Commonwealth and one of the largest in the world, will enter the United States drug markets this coming spring. The American company will be known as Boots Pure Drug Company (U. S. A.), Ltd., with head-quarters at 270 Park Avenue, New York City, under the direction of Stuart Farlow, vice-president, who will be in charge of operations in this country.

(Continued on Page 190)

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BRIEFLY NOTED • • • • • from page 188

#### AT RANDOM



Fair Trade Guards Your Dollars, a 16-page, four-color cartoon book emphasizing the benefits of voluntary fair trade laws to the American public, put out by the Bureau of Education on Fair Trade, is now

available to the nation's druggists for distribution to eustomers. Distribution of this pamphlet launches the Bureau's 1951 educational campaign in observance of the 20th anniversary of enactment of the first fair trade law in California.

Dr. Anton J. Carlson, professor emeritus of physiology at the University of Chieago, was reelected president of the National Society for Medical Research at the annual meeting on February 11. Dr. Andrew C. Ivy, vice-president and head of the Chieago Professional Colleges of the University of Illinois, was re-elected secretary-treasurer.

Dr. Albert M. Mattocks, acting director of the A. Ph. A. Laboratory, resigned on March 1st to become Director of Product Development for McNeil Laboratorics, Philadelphia.

1950 Facts About Nursing, a statistical summary on salaries and personnel in relation to nursing, has recently been published by the American Nurses' Association. The report shows that the Pacific States lead all other regions of the country by a considerable margin both in average monthly wages paid to professional registered nurses and in adoption of progressive personnel practice for nurses.

Dr. George D. Beal, Chairman of the Council of the American Pharmaceutical Association, has recently been named Chairman of the Section on Chemistry (C), of the American Association for the Advancement of Science.

#### HOSPITAL PHARMACY



Plans to hold the Seventh Institute on Hospital Pharmacy in New Orleans, June 11-15, were completed at a meeting held at A. Ph. A. headquarters on February 2. Representatives were pres-

ent from the three organizations which sponsor the institutes annually. Members of the committee who attended the meeting included Don E. Francke, chief pharmaeist, University Hospital, Ann Arbor, Mich., chairman; I. Thomas Reamer, chief pharmaeist, Duke University Hospital, Durham, N. C.; and Albert P. Lauve, chief pharmaeist, Mercy Hospital, New Orlcans, La., all representing the Ameri-

can Society of Hospital Pharmaeists; Dr. Robert P. Fischelis, representing the American Pharmaceutical Association; and Mr. Leonard P. Goudy, representing the American Hospital Association. Also present at the meeting were Miss Valerie Armbruster, chief pharmaeist at Charity Hospital in New Orleans, and Miss Gloria Niemeyer, assistant director of the A. Ph. A.'s Division of Hospital Pharmaey.

A Seminar for Hospital Pharmacists in Texas will again be sponsored by the University of Texas in Austin on April 23 and 24. Speakers for the seminar include Dr. W. Arthur Purdum, Johns Hopkins Hospital, Baltimore; Dr. George Valley, Bristol Laboratories, Syraeuse, N. Y.; and Mr. Lewis Smith, Baylor Hospital, Dallas, Texas.

The annual meeting of the Texas Society of Hospital Pharmacists will be held in conjunction with the Seminar. New officers of the Society to be installed at this meeting include: Cedric Jeffers, Scott and White Hospital, Temple, President; Leo J. Suyder, Robert Green Hospital, San Antonio, Vice-President; and Charlotte Coleman, John Sealy Hospital, Galveston, Secretary-Treasurer.

Appointment of Dr. Maleolm T. MacEachern as the new director of professional relations of the American Hospital Association has been announced by Mr. George Bugbee, executive director. In Dr. MacEachern's new post which he assumed on March 1, he will be concerned with Association programs aimed at developing better professional relations in hospitals.

Dr. MacEachern recently retired as associated director of the American College of Surgeons where he guided the hospital standardization program for more than 25 years. He is a past president of the American Hospital Association, received its award of merit in 1941 and is currently president of the American Protestant Hospital Association. He is also director of the course in Hospital Administration at Northwestern University and will continue this affiliation.

### GOVERNMENT



The Department of Defense and the Veterans Administration jointly announced plans last February to hospitalize certain disabled military personnel in VA hospitals for specialized medical

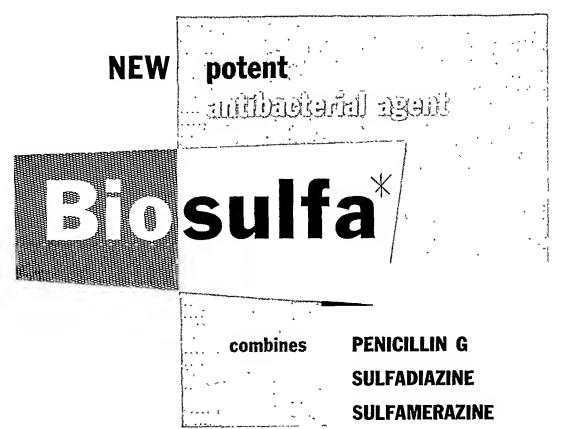
care, including rehabilitation on the same basis as other veterans with service-connected disabilities.

Patients who will fall into this eategory are those whose disabilities would make it improbable that they could be returned to active duty.

The new plan is designed to speed the transfer

(Continued on Page 192)

Vol. XII, No. 3



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#### BRIEFLY NOTED • • • • • from page 190

of military patients and to reduce the over-all national demand for critical medical personnel by caring for patients in one organization instead of having the branches of the armed forces duplicating personnel and facilities

Dr. Raymond F. Kaiser of Bethesda, Md, has been appointed chief of the Cancer Control Branch in the National Cancer Institute of the National Institutes of Health, Public Health Service

Dr Kaisci succeeds Dr. Austin V. Deibert, who has been appointed Public Health Service liaison officer to the Economic Cooperation Administration.

"Dr. Kaiser and Dr Deihert were co-developers of the first official national cancer program in the United States," said Surgeon General Leonard A. Scheele, in commenting on the appointment "They organized and administered the first Public Health Service program of financial assistance to medical and dental schools under which \$6,500,000 has been granted during the past three years to establish or improve cancer teaching to undergraduates"

"Your Best Buy," says the Public Health Service in a pamphlet of that name, is a full-time local health department.

The six-page leaflet outlines the essential protections which can be obtained through official health agencies and is designed particularly for communities, representing one-third of the nation, that do not have such services.

Dr Leonard A. Scheck, surgeon general of PHS, in commenting on the publication, said "The international crisis makes the need for more and better local health departments even more urgent. In the event of attack or threat of attack, large numbers of people from potential target areas would be dependent upon the public health services of rural and urban fringe areas, many of which have no health departments" Copies of the pamphict may be obtained from the Superintendent of Documents, Washington 25, D C, at 5 cents a copy

A 33 per cent drop in the number of students attending college this year under the provisions of the GI Bill was reported last month by Earl James McGrath, U. S. Commissioner of Education. According to Mr McGrath there were 856,000 veterans registered for college study last year. This year there are only 575,000.

"The sharp decrease in the number of veterans is reflected in the total higher education enrollment figures for 1950 which show a drop of 6.6 per cent from the peak enrollment reported a year ago," said Mr. McGrath.

According to the survey made by the Office of Education, veterans are outnumbered 3 to 1 by nonveterans. In addition, findings show that 56 per cent of the veterans have preferred to enroll in the larger universities

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PUBLISHED by the American Pharmaceutical Association Publication Office: 20th and Northampton Streets, Easton, Pa Editorial office (and address for all correspondence): 2215 Constitution Ava., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journal of the American Pharmaceutical Association, complete (hoth editions): United States and Pan Americae \$7; Canada \$7.70; other foreign \$8; members of the American Pharmaceutical Association with dues, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition: United States and Pan America \$4; Canada \$4.35; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Canada \$0.40; other foreign \$0.50. foreign \$0.50.

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ENTERED as second-class matter January 23, 1917, at the Post Office at Easton, Pennsylvania, under tha act of March 3, 1879, as 24 times a year; Scientific Edition monthly on the 5th; Practical Pharmacy Edition monthly on the 20th. Acceptance for mailing at a apecial rate of postage provided for in Section 1103. Act of October 3, 1917, authorized July 10, 1918.

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# $Recent \,\,$ Progress in Medicine

## INTRAVENOUS ADMINISTRATION OF CHLORAMPHENICOL

Preliminary studies of the intravenous administration of chloramphenicol indicate that the drug may he given rapidly as a 1 per cent solution in therapeutic doses in children without any untoward reactions.

Twelve children, ranging in age from 3 to 9 years, were used in the study, reported by Drs. W. W. Orr, W. G. Preissu, S. Ross, F. G. Burke, and E. C. Rice of Washington, D. C., in the first (April) issue of the new journal, Antibiotics and Chemotherapy. Object of the preliminary study was to determine the chloramphenical blood levels after varying doses of the drug predicated on a body weight basis and to ascertain the incidence of any toxic manifestations.

The researchers used a 1 per cent solution of chloramphenicol, employing acetyl-dimethylamine as the solvent, in 5 per cent glucose in water. Blood levels taken at varying times with varying doses showed that a high chloramphenicol blood level was achieved within 5 minutes, as compared to 1½ to 2 hours before peak levels are reached after oral administration of comparable doses of the drug.

The authors recommended a dose of 15 mg. per kg of hody weight every 6 hours, although the widespread use of the drug is not advised before further toxicity studies are made. Intravenous administration is indicated in cases in which the patient is semicomatose or unable to take medications orally.

## ANDROGEN-ESTROGEN VALUABLE IN TREATMENT OF MENOPAUSE

A critical study carried out over an 18-month period, during which 92 patients undergoing the menopause were given tablets containing male and female hormones, both singly and in combination, showed that combined administration of androgens and estrogens was the treatment of choice.

The research, performed by Drs. S. J. Glass and M. R. Shapiro of Beverly Hills, California, and reported in the March issue of the General Practitioner, was designed to treat the menopausal symptoms and hring about somatopsychic relief, minimal interference with "normal" changes, and minimal stimulation of the uterus and hreast.

Four preparations of identical-appearing tablets numbered in code were used in the study. Tablet No. 1 contained 0.25 mg. of diethylstilhestrol. Tablet No. 2 contained the androgen-estrogen mixture consisting of a ratio of 5 mg. of testosterone (male hormone) and 0.25 mg. of diethylstilbestrol. Tablet No. 3 contained 5 mg. of methyl testosterone and Tablet No. 4 was a placebo.

Seventy-two per cent of the patients obtained optimum symptomatic relief from Tahlet No. 2, containing the androgen-estrogen mixture. The range of daily dosage found to give best results was 5 to 10 mg. of testosterone and 0.5 to 1.0 mg. of estrogen during the first 14 to 21 days. For subsequent maintenance therapy, a daily dosage of 2.5 to 0.5 mg. of testosterone and 0.25 to 0.5 mg. of estrogen was recommended.

## NEW ANTIMALARIAL DRUG

Development of an antimalarial drug so powerful that a single ounce would constitute a five- to tenyear supply for the average patient was announced at the national meeting of the American Chemical Society held in Boston this month.

Although the drug is now being tested on malaria victims in Africa, it is still only in the experimental stage and its true value will not be known until adequate clinical evidence has heen compiled, according to a report by Dr. George H. Hitchings from the Wellcome Research Laboratories, Tuckahoc, N. Y.

If the drug should prove successful, however, its high potency would make it an unusually valuable weapon in fighting malaria—a disease afflicting an estimated half hillion persons in various parts of the world. Dr. Hitchings pointed out that the cost of treatment would he very low and so little of the compound would have to be administered that there would he small danger of toxic reactions. The drug, which is synthesized from readily available raw materials, is of the suppressive type.

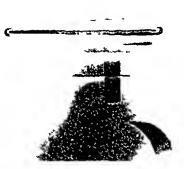
Technically known as "5-parachlorophenyl-2,4-diamino-o-ethylpyrimidine," the new drug is one of a series developed as the result of an investigation of the fundamental chemistry of cell division.

The first observation, two years ago, of a sulstance with a potency about the same as that of quinine was the starting point from which drugs of higher and higher potency have been developed. New substances were discovered with five, then twenty-five, one hundred, and finally one thousand times the original potency.

All of these substances belong to a group of 2,4-diaminopyrimidines previously found to inhibit milk-souring bacteria, but fine details of chemical structure greatly affect their action on malarial organisms. The most potent group is the 2,4-diamino-5-phynl pyrimidines, and the most potent substance is 5-parachlorophenyl-2,4-diamino-o-ethyl-pyrimidine.

(Continued on Page 200)

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Progress in Medicine

• • from page 198

## MYASTHENIA GRAVIS

In treatment of the paralysis and tremor of facial, throat and jaw muscles seen in myasthenia gravis, a new drug, octamethyl pyrophosphoramide, underwent its first clinical trial. An anticholinesterase agent, it proved successful in four of six cases in which neostigmine had not given satisfactory results.

The tests were carried out by Drs. J. A. Rider, S. Schulman, R. B. Richter, H. C. Moeller, and K. P. DuBois of the University of Chicago. The preliminary report appears in the March 31 issue of the Journal of the American Medical Association.

The drug was administered orally as a 1 per cent solution in distilled water twice daily at 12-hour intervals. The dosage the first day was 7 mg. at each administration, and was increased by increments of 1 mg. every one to three days, depending on the rate of fall of the serum and red cell cholinesterase levels, until maximum benefit was obtained. At the same time the neostigmine dosage was decreased until it was no longer needed.

Muscular strength of three patients was much improved on the regimen of octamethyl pyrophosphoramide as compared to neostigmine. In another case, the new compound proved equal to neostigmine. In the remaining two cases, no response was noted with either of the drugs.

The authors concluded that octamethyl pyrophosphoramide could replace neostigmine in certain cases of myasthenia gravis. Patients indicated a preference for the drug, as its action resulted in evenly maintained strength greater than the maximal strength obtained with neostigmine.

## TERRAMYCIN BRINGS FAVORABLE RESPONSES IN INFECTIOUS DISEASES

Terramycin was found to be as effective as other antibiotics in a study of 108 cases of infectious diseases commonly encountered in adult and pediatric medical wards of a general hospital.

Drs. R. J. Sayer, J. C. Michel, F. C. Moll, and W. M. Kirby, all of the University of Washington School of Medicine in Seattle, reported their findings in the March issue of the American Journal of the Medical Sciences.

The 108 cases included twenty-eight of urinary tract infections, thirty-eight of bacterial pneumonias, twenty-one of pertussis, six of tonsillitis, four of bacillary dysentery, and eleven of miscellaneous

infections, including one case each of amebiasis, typhoid fever, and subacute bacterial endocarditis.

The average dosage for adults consisted of 1 Gm. of terramycin orally every 6 hours. Children were given doses of similar magnitude according to body weight. Ten adults with pneumonia received 250 mg. of an intervenous preparation twice daily. Toxic reactions were uncommon, and in only one case was it necessary to discontinue the drug.

Eighty-five per cent of the patients with urinary tract infections had a favorable clinical response. Eighteen of twenty-one children with pertussis had favorable responses to terramycin therapy, and the authors concluded that terramycin was as effective as aureomycin or chloromycetin.

All thirteen adults with bacterial pneumonias had favorable responses, and twenty-two of twenty-five children also responded favorably.

Favorable responses were noted in patients with bacillary dysentery, tonsillitis, erysipelas, and bronchiectasis, and typhoid fever. Two patients with numps complicated by orchitis improved promptly when terramycin was administered.

## TREATMENT OF ALOPECIA AREATA

Ultraviolet light and use of stimulating antiparasitic ointments were recommended in treatment of alopecia areata (baldness occurring in circular patches) by Dr. N. P. Anderson of Los Angeles. The article appeared in the February issue of *Postgraduate Medicine*.

Ultraviolet light therapy is indicated for office treatment.

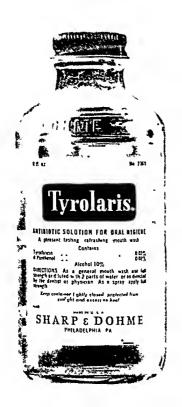
For local use at home, Dr. Nelson suggested ointments containing 3 to 5 per cent of sulfur or 3 to 5 per cent of ammoniated mercury. To either preparation, 1 to 2 per cent of salicylic acid or 1 to 2 per cent of resorcin, or both, may be added. The ointment is applied with moderate friction once or twice daily.

For patients who prefer a stimulating lotion, the following may be applied once or twice daily.

R Bichloride of mercury	0.12
Resorcin	4.0
Chloral hydrate	4.0
Tincture cantharides	15.0
Alcohol 70 per cent	
Distilled water aa ad	240.0

Note: Mono-acetate of resorcin should be used instead of resorcin if patients have blonde hair.

Dr. Anderson stated that in the majority of mild or moderately severe cases of alopecia areata, the measures prescribed usually are followed by regrowth of hair.



## Bacteriostatic potency of Tyrolaris compared with that of other leading mouthwashes

TYROLARIS 1 in 255	This chart illustrates the exceptionally high bacteriostatic potency of Tyrolaris in vitro. The columns show how much each mouthwash can be diluted and yet retain demonstrable bacteriostatic effect (inhibiting growth of Staphylococcus aureus at 37°C).				
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ı	mouthwa	 H	V" 1 in 1	1 in 10	1 in 7
I		mouthwash "B" 1 in 17	mouthwash "A" 1 in	mouthwash "C" 1 in 10	mouthwash "D" 1 in 7
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Members of the American Pharmaceutical Association are invited to submit their professional problems to the Journal, 2215 Constitution Ave., N. W., Washington 7, D. C., giving all pertinent details. Advisory service is provided by the A. Ph. A. library and technical staff and the Journal panel of technical consultants.

## DETERMINING PRESENCE OF CARBON MONOXIDE

I have been doing some work with the U.S. P. test to determine the presence of carbon monoxide in several of the medicinal cases, and would like to know just what the sensitivity of the test happens to be. I have not been able to find any reference to this question.—A. J. M., Brooklyn, N. Y.

The U.S. P. test according to "The Analytical Chemistry of Industrial Poisons, Hazards, and Solvents, Second Edition" by M. B. Jacobs, which is published by Interscience Publishers, was originally described in U. S Public Health Reprint 790 (1922) and revised and published in U S. Bureau of Mines, Miners' Circular 33 (1938). According to Jacobs, on page 436 of his book, "In the range of low percentages, from 0.01 per cent to approximately 0.2 per cent, the pyrotannic acid method is very accurate, and for this reason was formerly used in preference to other methods or apparatus by the gas laboratory of the U. S. Bureau of Mines experiment station at Pittsburgh for determining or confirming the presence of low percentages of carbon monoxide in samples of mine air, especially mine-fire atmospheres."

From the above statement it appears that the lower limit of sensitivity is in the range of 0.01 per cent of carbon monoxide.

#### TERPIN HYDRATE INCOMPATABILITY

What forms the precipitate in this prescription?— H. L., N. Y.

Codeine phosphate	$\dots$ 0.2 Gm.
Hydriodic acid syrup	60.0 cc.
Terpin hydrate elixir q.s. ad	

The difficulty experienced in attempting to compound this prescription is due to the precipitation of the terpin hydrate. Terpin hydrate is soluble to the extent of about 1 Gm. in 200 cc. of water. Terpin bydrate clixir, which includes 40 per cent glycerin and 42.5 per cent sleehol by volume, contains practically the maximum amount of terpin hydrate that will remain in solution at a temperature of 15° C. Because of this, the terpin hydrate is precipitated when the clixir is diluted with the aqueous solution of hydriodic acid in the form of the syrup. We can suggest no way in which the prescription as written can be filled without causing precipitation of the terpin hydrate.

## INCOMPATIBILITY OF AMINOPHYLLINE

What is the best method of preparing the following prescription so that a precipitate does not form upon standing?—M. L. E., Tenn.

Ephedrine sulfate	3 gr.
Codeine phosphate	
Aminophytlin	
Polassium iodide	8 gr.
Seconal	2 gr.
Nembulal elixir q.s. ad	1 fluidounce

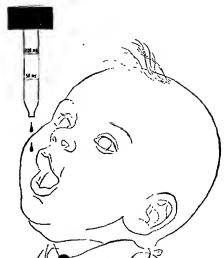
We have made a number of tests in the laboratory and, although we were able to make a clear solution of the mixture, we found that a precipitate formed on standing. This precipitate, we believe, was theophylline.

It would not be expected that aminophylline would be compatible with the other ingredients, since it is only stable in an alkaline solution and most of the other ingredients are acidic in character, especially the vehicle. To make the mixture sufficiently alkaline to stabilize the aminophylline would cause decomposition of the Seconal and Nembutal

We recommend that you suggest to the physician that the aminophylline be dispensed separately as tablets or as an elixir and that the other ingredients be combined as stated in the prescription. We have found that if the aminophylline is left out the prescription is a stable one which is easily prepared with the aid of gentle heat and stirring.

Vol. XII. No. 4

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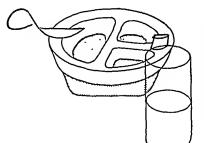
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1941 · A DECADE OF PROGRESS IN ANTIBIOTIC THERAPY · 1951



A blood vessel bank to save and preserve human blood vessels has heen established at New York Hospital, Cornell Medical Center and Bellevue Hospital, part of the New York University-Bellevue Medical Center, from which blood vessels may he "drawn" to he used in surgical repair of damaged main arteries of the heart. Reported in the March 24 issue of the Journal of the American Medical Association hy Drs. E. B. Keefer, W. D. Andrus, Frank Glenn, G. H. Humphreys II, J. W. Lord, Jr., W. B. Murphy, and A. S. Touroff, the blood vessel bank is the first of its type.

Tooth banks are also in the realm of possibility, according to Dr. H. H. Shapiro, assistant professor of anatomy at Columbia University College of Physicians and Surgeons, who successfully transplanted the huds of developing permanent teeth from one cat to another. Although there is no assurance that these results can be applied to humans, there is a case on record in which a successful transplantation of a molar tooth was accomplished. Big stumbling block in establishment of such a hank is the supply of human tooth buds.

Control of panic in the event of major disaster, such as an A-homh explosion, will undergo intensive study hy scientists of the Department of Defense, Federal Civil Defense Administration, and National Research Council. Purposes of the study are to study psychological reactions and behavior of individuals and local populations in disaster in order to develop methods for prevention of panic and for minimizing emotional and psychological failures. Disaster study teams will study the problems in nineteen major cities.

Glaucoma is estimated by Dr. E. M. Blake of Yale University to be taking the eyesight of 800,000 Americans who do not know that they are going blind. He told a meeting of the National Society for the Prevention of Blindness that a two-pronged attack consisting of study of the normal eye and the diseased eye and research in psychology and the endocrine glands is necessary if the disease is to be controlled.

Poliomyelitis patients who have difficulty in hreathing will henefit by a mechanical "cougher." The new device, announced by Dr. A. L. Barach of Columbia University at a conference sponsored by the National Foundation for Infantile Paralysis in Houston, Texas, consists of a close-fitting haffle around the patient's neck and a hair trigger air valve geared to operate in 1/800 of a second. This permits a sudden and explosive compression of air on the patient's chest and abdomen which simulates the mechanism of a natural cough and expels the collected secretions from the lungs and bronchial tubes.

Cancer of the thyroid gland responsed to treatment with male hormone for the first time in medical history. Reporting to the American Cancer Society, Dr. H. M. Lemon of Boston University said that the patient, a 53-year-old woman, has left her sick hed and has heen leading a routine normal life. Although a cure has not heen effected, scientists are using this opportunity to study the influence of male hormone on protein synthesis in thyroid cancer.

Radioactive gallium may he an effective new weapon against hone cancer if certain technical difficulties can be overcome, Comdr. H. C. Dudley, head of the hiochemical division of the Naval Medical Research Institute, Bethesda, Md., has forecasted. Radioactive gallium from the Oak Ridge atomic pile has given relief to patients with hone cancer, with promising enough results to warrant further trials. Difficulties to he eliminated are its toxicity and short radioactive life.

Heart disease resulting from rheumatic fever is second greatest killer of children in the United States, exceeded only hy accident, Dr. George Wolff of Washington, D. C., reported in the March issue of the Journal of the American Medical Association. However, the rise of these conditions as number one killers is not due to an increase in deaths, but hecause of the decrease in deaths from other childhood diseases. Actually, the mortality rate for deaths due to rheumatic fever and heart disease has decreased 70 per cent for children five to ten years, and 60 per cent for the group fifteen through nineteen years.

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#### COURT JUDGMENTS-FEBRUARY, 1951

#### ADULTERATED AND MISBRANDED DRUGS AND DEVICES

Locality	Product	Violation and Sentence
Mount Vernon, N. Y.	Succidol; Calvital capsules	Deficient in vitamins and active ingredient claimed in labeling. Sentence: corporation fined \$200, 1 defendant fined \$204
Cleveland, Ohio	Male hormone	Misleading therapeutic claims; failed to bear adequate directions for use. Sentence: 1 defendant fined \$250 and court costs
Philadelphia, Pa.	Testramone; A-Vee; Harvaplex— injection drugs	Contained living bacteria; Harvaplex sub- potent. Sentence: corporation fined \$2000; I defendant fined \$100 and placed on pro- bation for one day

#### OVER-THE-COUNTER SALES-PRESCRIPTION DRUGS

Locality	Product	Violation and sentence.
Mena, Ark.	Barbiturates; Amphetamines; Sulfonamides	Sold without physicians' prescriptions. Sentence suspended, 2 defendants placed on probation for one year
Mena, Ark.	Barbiturates; Amphetamines; Sulfonamides; Thyroid	Sold without physicians' prescriptions. Sentense suspended; 2 defendants placed on probation for one year
Mena, Ark.	Barbiturates; Amphetamines; Sulfonamides; Thyroid	Sold without physicians' prescriptions. Sentence suspended; 2 defendants placed on probation for one year
Mena, Ark.	Amphetamines; Thyroid; Stilbestrol	Sold without physicians' prescriptions. Sentence suspended; I defendant placed on probation for one year
Owensboro, Ky.	Barbiturates; Neo-Hombreol	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$150
Barberton, Ohio	Benzedrine; Methyltestosterone	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$200
San Angelo, Tex.	Barbiturates; Thyroid	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$500

# · New A.Ph.A. Members



THE ASSOCIATION EXTENDS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP DURING THE MONTH PRECEDING PREPARATION OF THIS ISSUE.

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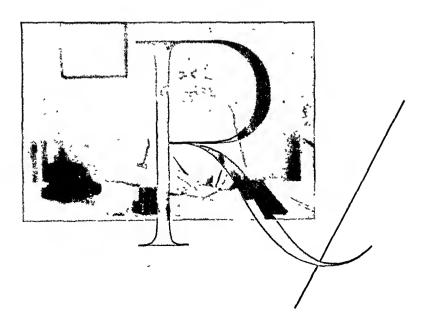
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VOL. XII, NO. 4 CONSECUTIVE NO. 7

# Practical Pharmacy Edition

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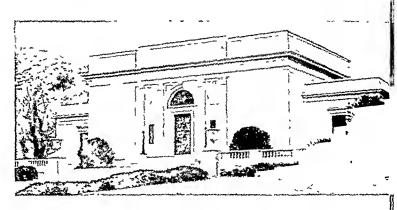
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## STRAIGHT FROM HEADQUARTERS



by Robert P. Fischelis, Secretary

AMERICAN PHARMACEUTICAL ASSOCIATION

#### A Serious Responsibility

THE circus type of advertising which has been revived in connection with the recent promotion of a so-called vitamin tonic proves that human nature does not change and the gullibility of people is unaffected by recent advances in medicine and pharmacy. Charlatans can still amass fortunes under existing drug and pharmacy laws by complying with their letter but ignoring their spirit.

Professional people as well as law enforcement authorities stand idly by and witness the employment of blatant advertising and publicity techniques which impress ordinary citizens in spite of all the dignified and persuasive health education programs and literature that are made available by health departments and professional groups working together earnestly to spread the truth about disease and methods of preventing and curing it.

The sad part of the situation is that some physicians and pharmacists are unwitting or careless contributors to the success of these rackets. A physician may look at the formula of a vitamin product, note that according to the label it contains the minimum dictary requirements, or more, of essential vitamins and minerals and come to the conclusion that the product can probably do no harm and that it may supplement a carelessly selected diet. Therefore, no serious objection is offered to its use and in some cases it may even receive the physician's tacit recommendations. Actually, some publications reaching the medical profession accept ad-

vertising of such products regardless of the promotional methods employed.

Pharmacists in general have not exercised as much discrimination as they should in stocking ready-made medicines. They rely on federal and state authorities to police the quality and therapeutic claims for such products and generally ignore the promotional methods employed by the manufacturers. When the public begins to call for preparations by name, the pharmacist is inclined to supply them as a part of his regular service and thus he frequently profits from such promotions even though he would refuse to be a party to their conception.

This unfortunate chain of circumstances links reputable physicians and pharmacists with promotional schemes that are abhorrent to them and probably violate their respective codes of ethics. It is a difficult situation to handle as long as reputable newspapers and magazines and the radio, television, billboards and other accepted advertising media are employed around the clock to convince people that they must take the promoters "elixir of life" in order to be saved.

But to state the case as we have is not to excuse participation, involuntary though it may be, by physicians, pharmacists and other personnel in the health field in the revived "medicine show" or other means of preventing the sick or near-sick from getting adequate medical care or wasting their money. There is a responsibility on the part of all the professions engaged in providing

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medical care to discourage racketeering in this field by exposing the untruths or halftruths or the unethical methods employed by promoters of the sale of medicines directly to the public without medical advice. This responsibility is not discharged by a shrug of shoulders when action is indicated.

Perhaps the time has come for all national organizations in the drug industry to join in an extra-legal policing effort. To some extent this has already been done by the Proprietary Association of America which is most concerned with products manufactured and distributed for self-medication. But a wider and more effective system to reach products not produced by members of this group or which have not accepted the self-imposed standards of this group, especially with respect to advertising, is necessary.

We cannot shirk our responsibility in this situation and retain the confidence of the thinking public.

#### Auticipated Ruling on Prescription Refilling

We can state positively to the pharmacists of the United States that although there has been a delay in the issuance of the final ruling by the Federal Security Agency on the interpretation of the Food, Drug and Cosmetic Act with respect to filling and refilling of prescriptions, such a ruling is expected in the near future.

Administrator Oscar Ewing of the Federal Security Agency has had under consideration for several months the various comments which have been filed with him on the tentative ruling which was published in The Federal Register on December 6, 1950. A revision of the proposed ruling has been under way but it has been delayed because attorneys of the Administration who are writing the ruling have been engaged in trying important cases on the West Const.

It is anticipated that a revised tentative ruling will be published in the near future and that further comment from the profession and industry will be asked for before the ruling is made permanent.

The AMERICAN PHARMACEUTICAL AS-SOCIATION is issuing this information on the highest authority at this time because un-

founded rumors have been circulated to the effect that Mr. Ewing does not intend to issue the expected ruling because of pending legislation on the subject. It is well recognized that controversial legislation of this kind is very apt to be sidetracked by Committees of Congress until those affected by such proposed legislation can reach an agreement.

In the meantime, it is important that the legality of the interpretation of the Food and Drug Administration of the present Food, Drug and Cosmetic Act with respect to the filling and refilling of prescriptions be determined. In a Bulletin (No. 7) issued last August, we stated: "The Association will obviously take no stand on proposed legislation until the fundamental issue raised in the communication to the Federal Security Administrator has been settled." This is still our position.

We believe that the issue has been clarified sufficiently to warrant the promulgation of a ruling under which the pharmacists of the United States can carry on their important prescription work without undue regulatory interference. If the ruling to be issued does not meet the current needs of the medical and pharmaceutical professions, further action will be taken. In the meantime, practicing pharmacists need not fear prosecution for authorized renewal of prescriptions whose renewal is not prohibited by Federal or State narcotic laws or State barbiturate and dangerous drug acts.

#### Cortisone Poses a Problem

New problems come to American pharmacy from unexpected sources without warning. When cortisone first became available for general use it was not expected that its distribution might become a major problem. We had become accustomed to governmental regulation of the distribution of scarce drugs through the method followed when penicillin first became generally available during World War II. The limited production was originally confined to the armed forces. As this demand was filled and some surplus was available, a committee of the National Research Council was

(Continued on page 244)

# Professional Service

## -PHARMACIST

by Arthur F. Peterson

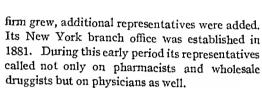
Director, Sales and Distribution, Pharmaceutical Division, Gegy Company, Inc., N. Y. Presented before the Section on Historical Pharmacy, AMERICAN PHARMACEUTICAL ASSOCIATION, Atlantic City meeting, May 1951.

Since 1850, when he made his first call, the "Detail Man" has fulfilled a vital service to pharmacy and medicine. However, his job has just begun.

THE history of the development of pharmaceutical selling by pharmaceutical manufacturers during approximately the past century parallels the progress of medicine. Selling and detailing by means of representatives further parallels the development of centralized manufacture and the introduction of pharmaceutical specialties.

The earliest record that has come to my attention appears to indicate that selling by the first pharmaceutical manufacturer in the U.S., established originally and exclusively as such, commenced in 1824. By 1839, a fourth edition of The Tilden Company's catalog of its own manufactured pharmaceutical preparations had appeared. It offered about 120 botanicals, about 25 extracts, some inspissated juices, lozenges, pills, and syrups. Characteristic of early specialties were such titles as "Compound Vegetable Cough Balsam," "Vegetable Cough Drops," "Concentrated Syrup of Liverwort," "Compound Concentrated Syrup of Sarsaparilla," "Compound Syrup of Black Cohosh," and "West's Patent Chlorine Cosmetics and Pills." provided special reason for personal solicitation of business from druggists and physicians supplementary to advertising in medical journals and by house organs such as Tilden's Materia Medica which was distributed monthly to physicians during the 1850's and 1860's.

George S. Davis, who joined the new Parke, Davis & Company in 1867, is generally regarded as the firm's first traveling salesman. As the



The Wm. S. Merrell Company placed men in the field around the year 1880. This date practically coincides with the company's introduction of pharmaceutical prescription specialties. Reed & Carnrick placed its first representative in the field in the late 1860's; Lilly about 1880; Wyeth about 1890; Squibb in 1904; and Abbott Laboratories in 1905.

Apparently, most of the medicines in the period prior to 1890 were dispensed by physicians. Therefore, much selling by pharmaceutical houses was done directly to physicians. Such dispensing began to wane as pharmaceutical manufacturers placed representatives in the field and increased their sales staffs. Today, dispensing by physicians has decreased relatively to the point where, in the foreseeable future, it is most likely to be almost non-existent. Dispensing by physicians and clinic-owned pharmacies encourages thinking favorable to socialized medicine. Such practice is not conducive to the maintenance of a system of free enterprise and properly divided professional responsibility.

#### Need for Pharmacists

In the early days of detailing activities by pharmaceutical manufacturers, more physicians proportionately than now were employed for this work. The reason is obvious in that it was desired that men who called on physicians should be well informed in the pharmacology and therapeutic application of the drugs they had to scll. But physicians proved to be not too popular for this work as "they had the tendency to tell



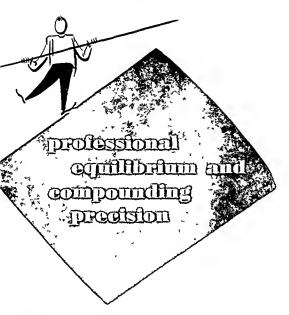
doctors how to practice." One pharmaceutical manufacturer had, of 40 detailers, 15 who were M.D.'s. Pharmacists, however, were employed in greatest number. As the pharmaceutical-education requirements for graduation from our colleges of pharmacy have increased, fewer and fewer physicians have been employed for detailwork until the present day when physicians doing this work are the rare exception.

Marked and accelerated increase in the size of pharmaceutical manufacturers' staffs of representatives began at the turn of the nineteenth century. This followed closely on the advent of and the progressive increase in the number of pharmaceutical prescription specialties. Tional pharmaceutical manufacturers came into the picture. Our growing population naturally had its effect on this expansion in sales and detail staffs. Advertising by means of house organs, and by medical-journal and direct-mail advertising increased with the growth of sales organizations, although in the earliest years in the history of American pharmaceutical manufacturers, advertising apparently carried by far a greater part of the selling responsibility.

Selling by personal solicitation seems to have been beneath the dignity of many of our pharmaceutical-manufacturing forefathers, as for example one of them who "raised Cain" with his more enterprising young son who made a trip to a near-by city for the purpose of stimulating the firm's business among physicians and pharmacists. It was the old gentleman's theory that if people wanted to buy the firm's products they should come and get them. Some of our present-day professional pharmacists seem still to be imbued with the same idea, but detailing of physicians by and for apothecaries has been the secret of success of many professional pharmacies of today. It will be more important in the future.

Many of our present-day pharmaceutical-manufacturing establishments sprang from retail pharmacies. Pharmacies were, in fact, the first manufacturers of pharmaceuticals, though for local consumption of course. Active detailing and advertising promotion, coupled with scientific research, has brought pharmaceutical manufacturers to their present status. Sampling of products to physicians has played an important role in pharmaceutical marketing.

From about 1900 to 1923 ethical-pharmaceutical manufacturers increased the number of their representatives rather modestly. While I do not know the exact number, I would guess on the



ecognition of pharmacy as a profession hangs in the balance! A majority of our practicing pharmacists find it difficult to determine the proper and most remunerative balance between their professional and their merchandising activities. It is difficult for some pharmacists who have solved that problem to maintain a detached and calm mental equilibrium in the maze of ever-increasing new drug products and duplications, the changing overhead expenses and drug price alterations, the changing and always increasing taxes and records, and the confusing interpretations of laws pertaining to pharmacy. But there is no doubt at all that some pharmacists could enhance the appearance of their prescription departments and improve their professional standing by obtaining, maintaining, and properly using adequate prescription equipment. This is notably true of prescription balances.

Several surveys of compounding precision

by Albert M. Mattocks, Ph.D. and Samuel W. Goldstein, Ph.D.

A Report from the Laboratory of the AMERICAN PHARMACEUTICAL ASSN.

have been published in the last few years. The frequency and extent of excessive deviations in the studied preparations have been revealing to some pharmacists and amazing to others. The results show that aside from the extreme deviations caused by erroneous calculations, confused mental states, and complete indifference to general techniques, a great many errors must be attributed to the unintentional improper use of good equipment and the use of inaccurate equipment which have flaws that are undetected by the pharmacists

The American Pharmaceutical Association Laboratory staff is undertaking a study of the fundamental factors affecting compounding precision. These studies will be coordinated with recommendations of the A. Ph. A. Committee on Prescription Tolerances. This committee includes outstanding practicing pharmacists. The results of these studies will be made available in This Journal, together with recommendations and instructions for improving compounding accuracy. We will start with the balance, because weighing is generally the first step in most compounding procedures.

## what is a prescription balance?

True prescription balances, or Class A prescription balances, are manufactured to meet the high standards of precision of the National Bureau of Standards and are thoroughly tested for accuracy before leaving the factory. Properly used and cared for, they will give long service with low repair costs, and the high precision will be maintained. On the other hand, a single accident or abuse of this delicate piece of apparatus may cause a significant change in sensitiveness, although its appearance to the eye may be unchanged. If the operator is not on the alert for such changes in the balance, the difference might not be detected. It is the purpose of this article

to review the types of approved prescription balances.

The National Bureau of Standards says that a balance used in the compounding of prescriptions should meet a specific set of requirements which have been carefully formulated.

There are two types of prescription balances, Class A and Class B, which differ in their accuracy and sensitivity. Separate tolerances are set up for each type by the National Bureau of Standards. The Class A balance should be used for weighing amounts of 0.65 Gm. (10 grains) or less, and it is useful for amounts up to 15 to 120 Gm. (1/2 to 4 ounces), depending upon the stated

#### PRACTICAL PHARMACY EDITION

capacity. The Class B balance may be used for weighing larger amounts but not for weighing less than 10 grains. The tolerances for the Class B balance are still stringent enough so that weighings of larger amounts on this instrument can be sufficiently accurate. The purpose of having the two types of balances is to make it possible to weigh larger amounts of drugs on a less delicate balance and thus save wear on the more sensitive one; however, the Class A balances now manufactured usually weigh up to 4 ounces without any risk of damage, so that Class B balances are becoming less important. Every prescription department must have a Class A balance. The Class B balance is optional. A Class B balance should be conspicuously marked with the words, "Class B-not to be used in weighing loads of less than 10 grains." Type this on a label and stick it on the front of the balance to remind any operator of the practical limitation of the balance.

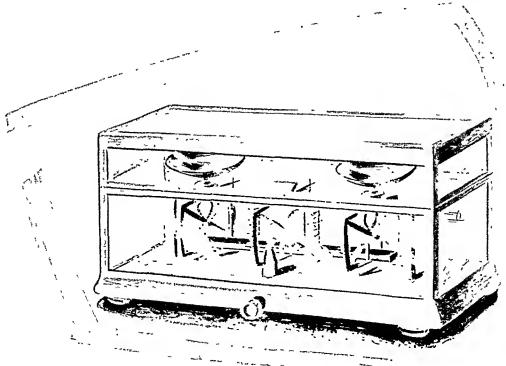
A prescription balance, whether Class A or B, should meet the following general requirements:

1. It should be constructed so as to support its full capacity without developing undue stresses, and should not be thrown out of adjustment by repeated weighings of the capacity load. (The capacity of the balance will be seen on the metal

plate attached to the balance.) If the capacity of the balance is not stated, it is assumed to be at least 15 Gm. ( $\frac{1}{2}$  ounce). The new Class A balances usually have a capacity of 120 Gm. (4 ounces).

- 2. The removable pans of a prescription balance should be of equal weight. If the pans show any difference in weight, they should be adjusted. Pans with any appreciable corrosion or wear should be refinished or replaced.
- 3. A prescription balance should have a leveling device, usually leveling feet or screws, so that the balance can be adjusted to a level position. A balance that does not have these is not entitled to be designated a prescription balance.
- 4. The balance that has a rider or poise should have, at the end of the scale, a stop which halts the rider at the "zero" reading. The reading edge of the rider should be parallel to the graduations on the beam.
- 5. The indicator points, when there are two on the balance, should be sharp, and their ends should not be separated by more than 0.04 inch when the scale is in balance. The distance from the face of the index plate to the indicator pointer or pointers should be small (0.04 inch or less) so

(Continued on next page)



The first of a series of articles on the balance and precision in compounding. Part II, in May, will present tests to check balance accuracy.

as to protect the operator against making errors resulting from parallax, since it is unlikely that the eye of the operator will be exactly in line with the indicator and the division on the index plate. The indicating elements as well as the lever system of the balance should be protected against drafts. The balance should have a lid which allows a weighing to be made when the lid is closed.

6. A prescription balance must have a mechanical means for arresting the oscillation of the mechanism.

#### What To Do with a Faulty Balance

If the balance does not meet the proper requirements, adjustments should be made only by qualified repairmen. Next month, we will present the techniques to follow in testing the accuracy of a balance. If the balance is to be shipped, the manufacturer's instructions must be carefully followed, making sure that no more damage will occur during the shipment. Detailed shipping instructions are gladly furnished by the manufacturers of the various prescription balances.

During a recent conversation with members of one of the leading pharmaceutical balance manufacturing firms, we learned that perhaps more than 50 per cent of the damages to balances received in their repair department occurred during shipment. The main causes of shipping damage are: (1) failure to use the special binding posts or oscillator arrests built in the balance for preventing movement of the balance beam, and (2) failure to pack the detachable pans so that they will not fall about within the lid of the balance. Remember to place tags bearing the shipper's name and address inside and outside the packing case, and to write a letter to the company stating the date of shipment and the serial number of the balance. Some wholesale drug houses have prescription balances available for renting or lending while the balance is being repaired. If a loan balance cannot be found locally, the balance company will help locate one.

#### Proper Weights for a Proper Balance

Metric Weights. For prescription use, weights should be Class C or better. These weights have errors well within the tolerances for the balance, and they retain their accuracy for a long time with proper care. They should be furnished with a wooden or plastic box which serves as a protection against damage, and the set should have tweezers for handling weights.

Apothecaries' Weights. The coin-type of apothecaries' weights are a constant hazard to compounding accuracy. Their irregular surfaces

## Authors' Summary

To increase compounding precision as a step toward enhanced professional recognition, all pharmacists should institute periodic checking schedules for balances and weights.

Examine the balance to see if its construction meets the requirements for a prescription balance.

Determine whether balances are Class A or B. The dispensing room should have at least one Class A balance. All Class B balances should be properly labeled. Purchase a set of test weights for prescription balances.

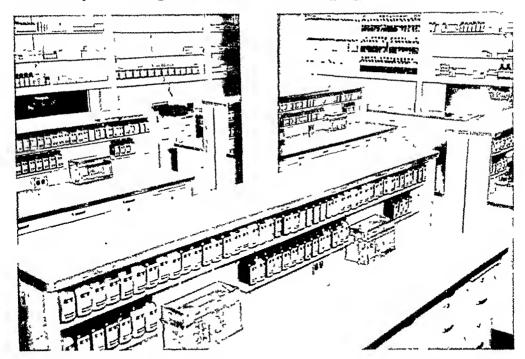
Replace coin-type apothecaries' weights with the newer cylindrical type. Examine present sets of weights to make sure they are not scratched, or corroded.

very readily pick up powdered chemicals, dust and moisture, and their surfaces corrode quickly. If this type of weight is used, a new set should be purchased every year, or whenever any corrosion or chipping occurs. Some states have outlawed the use of coin-type weights in pharmacy, and it is hoped that similar action will be taken eventually by all states. Gone are the days when the following advice of Edward Parrish could be heeded: "A convenient standard by which to test weights used in pharmacy is furnished by the legal coins issued from the U.S. mint. Those of gold are to be preferred and when new will rarely be found to vary more than 0.1 grain from the assigned weights." The apothecaries' weights that should be used have the same general construction as metric weights. should be contained in a suitable protective box. If coin-type weights are now being used, it would be good economy as well as good professional judgment to replace them with the more reliable cylindrical type. The newer type of apothecaries' weights are about \$5.00 a set.

Unless weights are expensive ones, it is cheaper and easier to buy a new set than to have the old ones readjusted and refinished, but if they should be an expensive set, and this particularly applies to the metric weights, they can be shipped to the manufacturer for correction at a reasonable cost.

(To Be Continued Next Month)

## Pharmacy Colleges and Their Equipment



## George Washington University Opens Dispensing Laboratory

In February of this year, dispensing pharmacy students of the George Washington University School of Pharmacy began their work in the modern laboratory pictured on this page. While designed as a teaching laboratory, it provides all the features of a modern prescription room.

The furniture is of ash-stained birch wood with an alcohol-resistant finish. All working areas are formica covered and all shelves are adjustable. The laboratory proper is 28 by 24 feet and provides work areas for 18 students. In addition, cabinets along two walls provide an additional 75 square feet of working space. The wall cases above the cabinets, which are inclosed with plateglass sliding doors, provide about 150 running feet of shelf space. The cabinet tops are lighted by fluorescent lights concealed beneath wall cases

Ample storage space is available in the wall cabinets where forty-eight four-inch-deep drawers provide 78 square feet of space. Beneath the drawers is additional storage space of  $1^2/3$  by  $1^1/2$  by 50 feet dimension.

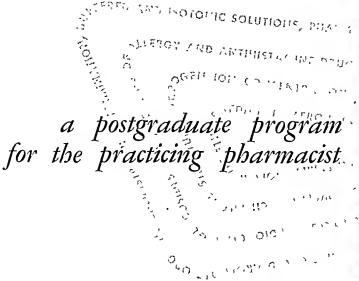
Three stainless steel sinks provide each student ready access to this facility. Waste receptacles are included beneath each of the sinks.

The table units are 4 by 8 feet and provide working space for four students, each having his own prescription balance. For storing equipment, each student has available three drawers  $1^{1}/_{2}$  by  $1^{1}/_{6}$  by  $^{2}/_{3}$  feet and has access to a common cupboard  $2^{1}/_{2}$  by  $1^{2}/_{3}$  by  $1^{1}/_{2}$  feet in dimension. On each end, just beneath the table top, is a pull-out ointment slab. Four shallow drawers provide storage space for powder papers, filter papers, spatulas, etc.

One feature of the laboratory is a stand-up telephone and reference desk (not shown in picture). This unit is 2 feet deep by 3 feet in width and provides four drawers for 3 by 5 index cards and four letter-size drawers for literature regarding new products. Directly beneath the top is space, the width of the unit, for reference texts, and directly above the unit is a bulletin board approximately 3 by 3 feet. Through the use of the telephone, prescriptions can be called into the laboratory from any office within the School.

Students will become familiar with the names and uses of the specialty products of the various manufacturers through incorporation of prescriptions on these items with the laboratory work.

Ample lighting is provided by six fluorescent units and adequate ventilation is assured through an exhaust fan with a capacity of 2500 cubic feet of air per minute.





## by Edward P. Claus

University of Pittsburgh School of Pharmacy

You can't "refresh" a subject that was never known before. Professor Claus urges a program of basic training geared to the demands of modern pharmaceutical progress that will truly be practical for the pharmacist of 1940 and before.

THEN a young man graduates from his college of pharmacy he feels, and rightly so, that he is adequately equipped to practice his profession. Thereupon, he immediately begins his necessary quest for the all-important dollar. If he is diligent, capable, and astute, he may become the owner-manager of his own establish-This process may take him ten years. Then he works harder than ever to make his business profitable. Another five years pass. When he finally stops to catch his breath and can afford to relax a little, he suddenly realizes that he is fifteen or twenty years behind in his profession although it seems only yesterday that he was graduated and up-to-date. This is the situation in which many of our practicing pharmacists find themselves today. When the graduates of the two- or three-year course in pharmacy, and possibly even some of the graduates possessing Bachelor's degrees, realize the

startling modern advances in their profession they feel the urgency for further knowledge. Such knowledge is essential in talking intelligently with their physician friends, dentists, fellow Rotarians, high-school students, and even the laity.

Professional meetings wherein one or two hours a month are spent listening to a lecturer speak on general research or on some isolated phase of research could scarcely constitute the postgraduate education of the practicing pharmacist. How else, then, can he acquire an adequate knowledge of the pertinent facts of modern pharmacy and related professional subjects? What can be done to enable him to learn more of the present-day medicating agents, of new pharmaceutical compounding problems, and of the many hundreds of specialty items which he must stock on his shelves? What type of an abbreviated postgraduate program would best serve the practicing pharmacist and, at the same time, be consistent with the needs of the educators and the colleges for which they work.

Presented to the Section on Education and Legislation, AMERICAN PHARMACEUTICAL ASSOCIATION, 1950 meeting, Atlantic City.

#### The Vital Need

The importance of a postgraduate educational program for the pharmacist who may have graduated ten, fifteen, twenty, or more years ago is a major consideration of any educator who has seriously studied this problem. The logical place for the practicing pharmacist to expect aid in regaining the modern concepts of the pharmaceutical field is his own college of pharmacy or the nearest college of pharmacy if he has moved away from his original Alma Mater. Recent pharmaceutical publications have listed a number of colleges of pharmacy which have offered various types of "refresher" courses for their graduates. These colleges are to be commended for their efforts in this venture of attempting to keep their graduates informed of new developments in the pharmaceutical field.

However, the "refresher" courses offered by some colleges of pharmacy are misnamed since the recipients, to begin with, have little or no knowledge of certain subjects and so, obviously, their memory cannot be refreshed! In many cases one- or two-day meetings are conducted with or without registration fees and generally with luncheons and/or dinners or banquets scheduled. Actually, these affairs are specifically planned as alumni homecomings with featured speakers invited to present to the audience the results of their scientific investigations. There may also be prescription clinics, prescription pricing discussions, compounding demonstrations, etc., each of which entertains and instructs the visitors but which rarely offers specific details. These meetings may be called Seminars and may be attended by from fifty to several hundred persons including the student body of the host school of pharmacy. Although the students are capable of understanding the topics, the alumni are usually somewhat perplexed regarding the subject matter but are impressed with the importance of the speakers. It is logical to assume that the graduates cannot completely grasp the significant remarks of the lecturer because they do not have, or more likely did not receive, the proper scientific background in their undergraduate training. This is no reflection on the teaching program of the school; it merely indicates that a comprehensive type of instruction is now being offered.

#### Questions No One Can Ask

At seminar meetings the graduate cannot ask questions of his own age group since they are in the same predicament; he also hesitates to ask questions in an open meeting before the student

### Author's Summary

The importance of a refresher program for the graduate of 1940 and before is a major consideration of any educator.

Courses now being offered in many localities fail to meet the need.

Practicing pharmacists cannot afford to take a year out of their business life for graduate study.

Extension divisions in smaller population centers might prove to be a practical solution.

Courses held over a two-week period, in the first four days of the week, hold promise of success.

The curriculum must be geared to the student body's ability to absorb the information.

body. As a result, he realizes that attendance at such meetings adds little to his general store of information. He does learn isolated facts but without an appreciation of the theory involved. When the pharmacologist speaks of the parasympathomimetic drugs how can the graduate be expected to know the specific phases of physiology implicated if his collegiate physiology course was not sufficiently detailed? How can he recall the structure of the organic groupings when the pharmaceutical chemist discusses the relative advantages of the ethylenediamine antihistamine drugs if he has not reviewed organic chemistry for twenty years? After several such experiences he merely attends the dinners or banquets to support his Alma Mater and fcels that his presence at the sessions is a waste of time.

If his college of pharmacy offers accredited graduate courses they would attract the attention of the recent graduate interested in obtaining an advanced degree. Obviously, the not-so-recent graduate cannot leave his place of business for a year, or even for a semester, to acquire or to replenish his informational background. If he lives in a city or town 75 or 100 miles distant from the college, his traveling time is prohibitive. How can this educational problem be remedied?

(Continued on next page)

#### Possible Solutions

If the pharmacist cannot be present at the college to attend special sessions designed for him, then the college should take the course of instruction to the pharmacist. Possibly one solution would be for the college of pharmacy to establish an extension division in a smaller center of population. This could be manued by a skeleton staff of the more competent members of the college faculty. This center could not expect to give complete courses of instruction nor could it give scholastic credit to the recipients. However, it could offer an abbreviated series of lectures on certain subjects and, if requested, could grant certificates of attendance. For obvious reasons, laboratory courses would be impossible to operate.

Consideration of this program gives rise to certain important questions. When should these courses be planned? What season of the year? Daytime or evening? Weekdays only? Full or half-day classes? Should a fee be charged? If so, what should it be? Who should constitute the teaching staff?

A canvass of the members of a county pharmaceutical association in Pennsylvania indicates that the pharmacists who recognize the need for such a course of instruction prefer that it be presented from 8:30 to 11:30 in the morning during the first four days of the week, and that it should be held for two weeks, in June or early July.

If the program occupies two weeks in a town or city 75 or more miles from the main campus, there is the matter of living expenses for the instructional staff. In addition, a course of this nature requires considerable preparation of material with special attention being given to the time factor. The entire program must be dovetailed perfectly. Thus, besides the actual presentation time of the lecture material, the instructor will spend an equal amount of time planning the ideal arrangement of subject matter. Salaries, living and travel expenses must be translated into necessary fees for the course. However, the pharmacists referred to above have indicated their willingness to pay for their instruction. Actually, since things that cost money are appreciated, a fee would probably increase attendance.

#### The Curriculum

Assuming that the pharmacy college could arrange a program with a skilled teaching staff, in suitable quarters, and for a reasonable tuition

fee, what subjects could and should be offered? Probably one of the greatest needs of practicing pharmacists today is a review of organic chemistry. This is necessary to comprehend fully not only the pharmaceutical chemistry but also the related pharmacology of the antihistamine drugs, the hypnotics, the sulfa drugs, and the steroid compounds. Merely knowing the trade names of the antihistamines without understanding the chemical structure is useless to the pharmacist when the physician asks him to suggest another type of compound.

A review of organic chemistry, which includes both aliphatic and aromatic compounds, is prerequisite to a consideration of the antihistamines. Elementary instruction in hydrogen-ion concentration is necessary for the proper interpretation of buffered solutions; similarly, a review of bacteriological classification and staining reactions should precede a discussion on the effects of antibiotics on rickettsiae, viruses, acid-fast bacteria, and Gram-positive cocci.

The course of training, then, might encompass the following: a review of both aliphatic and aromatic organic chemistry; pH determination and buffered and isotonic solutions; pharmaceutical wetting, masking, coloring, flavoring, and emulsifying agents; fundamentals of allergy and the antihistamine drugs; antibiotics; newer biologicals; vitamins; hormones; cardioactive glycosides; radioactivity; hypnotics; insecticides; rodenticides, and herbicides; as well as many other subjects. It would be advantageous to present related subjects on the same day; in fact, if the chemistry of the hypnotic drugs could be given simultaneously with the pharmacological aspects, the total effect would be more forceful. If the lecturers attended each others' classes during the program and made pertinent comments, a closer relationship between pharmacology, pharmaceutical chemistry, the various biological sciences, and pharmacy would be definitely emphasized.

In summary, the retail pharmacist is aware of his need for further training, he is willing to attend postgraduate classes if they are conducted for his background level, he expects to pay a reasonable fee for this course of instruction, he prefers to attend such classes in the summertime on Monday through Thursday, in half-day sessions from 8:30 a.m. until 11:30 a.m. If practicing pharmacists were to take advantage of an abbreviated postgraduate program offered by their colleges of pharmacy, they would occupy more efficiently the position they now hold in the public health professions.

Post the past decade, and particularly within the past five years, the upsurge of new pharmaceuticals has been so great as to engulf the pharmacist and pharmacy. The prohlem of saving, much less indexing, this vast list of new specialties has heen too great, except in those rare instances where sufficient help has heen available to permit the preparation of a special file. In the majority of stores, unfortunately, the filing and indexing has been largely a mental process, with the staff required to merely remember, as hest it could, the pertinent facts about each new item. Obviously, this technique leaves much to be desired.

Innumerable pharmaceutical publications have made some effort, and all of them have been sincere, to allay this terrific work load for the pharmacist. Despite these "feature departments" in a variety of journals, there has been no method yet devised that is practical, and at the same time, fast, and efficient. The bulk of these methods have involved clipping the notice from the Journal and then filing the clipping. As a matter of fact, such a method has been employed in the past by This Journal. It has, ohviously, one major fault, and that is that the pharmacist, or one in his employ, must keep up to date, constantly, because if a week or a month is missed, the backlog is so great that the time lost is never made up.

In an effort to speed the filing and systemizing of these new product names, descriptions, indications, dosage and other pertinent information, this issue of the Journal of the American Pharmaceutical Association, Practical Pharmacy Edition, institutes a new method of announcing new products. In the future, this feature will appear at the center insert of each issue, so that the pharmacist can simply remove the complete eight pages, and file them in a loose-leaf book. These pages are marked at the inside edge, so that holes may be punched to fit any ordinary 81/2 x 11 ring book. Each item will he listed alphahetically by title. On the last page of each month's insert a complete six months' index will be run, so that the pharmacist may quickly turn to his last issue index and find the product, month, and page number listed after the name of the product. In addition, to facilitate the finding of a product referred to as "that new product by So-and-So Company," each item will be cross-indexed under the name of the manufacturer in this copyrighted featurc.

This comprehensive index will cover a six-month period only, because in the opinion of the editors a product on the market for six months can no longer he considered "new," and secondly, national price books and product directories are now issued every six months rather than annually as in the past with the Red Book published in the fall and the Blue Book in early spring.

For the present, at least, this new monthly feature will appear as an eight-page insert. Should more new products enter the market it will be expanded

at last!
a new
prescription
products
department
that you can
really use!

to insure full coverage. Manufacturers interested in hringing their new items to the attention of the pharmacists throughout the country are urged to send their new listings to the editors, in copy similar to that printed, i.e., name, description, indications, administration, form supplied, and firm name. By following that format, a standard presentation will be established for all companies. Pharmacists, in turn, are urged to comment on the new method, and to suggest any improvements that will make this new department even more serviceable to them.

#### ABBOCILLIN-DC

Description: An aqueous suspension, each 1 cc. providing 600,000 units of penicillin G procaine.

Indications: In treatment of streptococcic, staphylococcic, and pneumococcic infections; gonorrhea, syphilis, and Vincent's infection; and as an adjunct to antisera in diphtheria.

Administration: 1 cc. by deep intramuscular injection every 48 hours. In more serious cases, 1 cc. every 12 to 24 hours.

Form Supplied: In single units of 1 cc., with disposable cartridge syringe, and in boxes of 12 units.

Source: Abbott Laboratories, N. Chicago, Ill.

## AUREOMYCIN INTRAVENOUS (VETERINARY)

Description: Aureomycin hydrochloride crystalline.

Indications: For use in wide variety of diseases in cattle, horses, and small animals.

Administration: As directed by veterinarian.

Form Supplied: In vials of 100 mg. and 500 mg., with diluent.

Source: Lederle Laboratories Division, American Cyanamid Company, New York, 20, N. Y.

#### AUREOMYCIN PHARYNGETS

Description: Orange-flavored lozenges, each containing 15 mg. of aureomycin hydrochloride crystalline with methylparaben and propylparaben.

Indications: Designed to dissolve slowly in mouth in treatment of Gram-negative, Gram-positive, and mixed bacterial infections of mouth and oropharynx. In severe oral infections may be prescribed with systemic aureomycin therapy.

Administration: By direction of physician or dentist.

Form Supplied: Boxes of ten.

Source: Lederle Laboratories Division, American Cyanamid Company, New York 20, N. Y.

#### BENZESTROL with Phenobarbital

Description: Tablets, each containing 1 mg. benzestrol and 16 mg. phenobarbital.

Indications: For treatment of menopausal cases requiring sedation as well as estrogen administration.

Administration: As directed by physician.

Form Supplied: Bottles of 100.

Source: Schieffelin & Co., New York.

#### CHLOROMYCETIN CAPSULES

Description: Capsules, each containing 100 mg. of chloramphenicol.

Indications: Specific therapeutic use in wide range of bacterial, viral, and rickettsial infections.





Administration: As directed by physician; 100-mg. capsules provide greater flexibility of dosage.

Form Supplied: Bottles of 25 and 100 capsules. Source: Parke, Davis & Co., Detroit, Mich.

#### CLUSIVOL

Description: Capsules, containing fat- and watersoluble vitamins with essential minerals.

Indications: For prevention of vitamin and iron deficiencies, especially in aged patients or for preoperative or postoperative use.

Administration: One capsule twice daily, or as directed.

Form Supplied: Bottles of 100 capsules.

Source: Ayerst, McKenna & Harrison Ltd., Rouses Point, N. Y.

#### DROMORAN HYDROBROMIDE

Description: Synthetic analgesic with properties similar to those of morphine, meperidine, and methadon.

Indications: Relief of severe pain, especially intractable pain due to cancer and other tumors, severe trauma, biliary and renal colic, gangrene, bursitis, neuritis, rheumatoid arthritis, myocardial infarction, sciatica, tabes dorsalis and radiculitis; also preoperative and postoperative pain relief.

Administration: From 2.5 to 5 mg. (1/2 to 1 cc.) by subcutaneous injection.

Form Supplied: 1-cc. ampuls, 5 mg.; boxes of 12 and 100, and in 10-cc. multiple-dose vials, 5 mg. per cc.

Source: Hoffmann-LaRoche, Inc., Nutley, N. J.

#### GYNETONE INJECTION

Description: Each cc. contains 1.0 mg. estradiol benzoate and 20.0 testosteronc propionate in sesame oil.

Indications: Single dose form of estrogenic and androgenic steroids in a typically suitable ratio for treatment of menopausal symptoms.

Administration: Mild cases of mcnopausal syndromes: 0.5 cc. two to three times weekly until symptoms are well controlled. Dosage is then reduced to ascertain minimum requirement. Maintenance therapy with Estinyl, Progynon or Progynon Buccal tablets may be preferred. Moderate cases: Treated in same manner, using 1.0 cc. two to three times weekly as initial dosage. Severe cases (including

## PRESCRIPTION PRODUCTS

This monthly listing of new prescription products is designed for easy insertion in a ring binder. Simply lift out the eight pages, punch holes where marked, and slip into an 81/2 x 11 binder. A continuing six month index appears on the sixth and seventh pages for quick reference. Manufacturers are urged to send their new product information to the Executive Editor, American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C., for inclusion in this free copyrighted editorial service.

surgical menopausc, roentgen castration, and cases manifesting involutional melancholia or other psychic disturbances): 1.5 cc. two to three times weekly as initial dosage.

Form supplied: 10-cc. multiple dose vial, containing 1.0 mg. estradiol honzoate plus 20.0 testosterone propionate in each cc., boxes of 1 and 6 vials.

Source: Schering Corp., Bloomfield, N. J.

#### GYNETONE TABLETS

Description: Tablets, each containing estradiol and methyltestosterone in the ratio of 1:10; namely, 0.5 mg. estradiol and 5.0 methyltestosterone, or 1.0 mg. estradiol and 10.0 methyltestosterone.

Indications: Single dose form of estrogenic and androgenic steroids in a suitable ratio for treatment of the menopause.

Administration: Dosage with higher potency tablet (1 mg. estradiol plus 10 mg. methyltestosterone) should be limited to one tablet daily. If the lower dosage tablet (0.5 mg. estradiol plus 5.0 mg. methyltestosterone) is used, one or two tablets may be given daily, gradually reducing the amount and frequency of the dosage as symptoms are controlled. When possible, gradual reduction of dosage of either strength tablet is recommended.

Form Supplied: Bottles of 30 and 100. Source: Schering Corp., Bloomfield, N. J.

#### KOLANTYL

Description: Synthetic compound with direct smooth muscle and parasympathetic depressant properties. Each tablet contains Bentyl hydrochloride, 5 mg.; Aluminum Hydroxide Gel, Dried, 400 mg.; Magnesium oxide, hcavy, 200 mg.; Sodium lauryl sulfate, 25 mg.; and Methycellulose, 100 mg.

Indications: Oral treatment of peptic ulcer and relief of symptoms caused by gastric hyperacidity with or without a tendency toward pylorospasm.

Administration: One or two tablets every three hours as needed for relief.

Form Supplied: Bottles of 100.

Source: Wm. S. Mcrrell Co., Cincinnati, Olio.

#### LENTOVET 600 SUSPENSION

Description: An aqueous injection for veterinary use, each cc. containing 600,000 units of crystallinc procainc penicillin G.

Indications: In penicillin-sensitive bacterial dis-

Administration: By intramuscular injection only. For dogs, intramuscular injection of 100,000 units every 24 hours. In larger animals, daily minimum dose of 2000 units per pound of body weight.

Form Supplied: In 1-cc. Tubex, with sterile

Source: Wyeth, Inc., Philadelphia, Pa.

#### **METHOSTAN**

Description: Brand of methandriol (methylandro-17 alpha-methyl-delta5-androstene-3 beta, 17 beta-diol); in 25-mg. tablets, and in aqueous suspension containing 50 mg. of pure minute crystals

Indications: In retarded growth and constitutional diseases accompanied by protein wastage when such conditions do not respond to diet or to more specific therapy.

Administration: Adults: 10 to 40 mg. daily, with either dosage form. Children: 5 to 10 mg. daily or less frequently until susceptibility to androgenic effects has been ruled out.

Form Supplied: Aqueous suspension: Vials of 10 cc., boxes of 1 and 6 vials. Tablets: Bottles of 30 and 100.

Source: Schering Corporation, Bloomfield, N. J.

#### OMNI-BETA IMPROVED

Description: Orange-flavored liquid, each tcaspoonful containing: thiamine hydrochloride, 2.0 mg.; rihoflavin, 2.0 mg.; niacinamide, 10.0 mg.; pantothenic acid, 2.0 mg.; pyridoxinc hydrochloríde, 0.2 mg.; choline, 20.0 mg.; inositol, 10.0 mg.; and secondary fraction derived from 10 Gm. of fresh liver.

Indications: Given therapeutically or prophylactically in vitamin B deficiencies, increased nutritional requirements for vitamin B factors or where there is abnormal loss of vitamin B factors through increased excretion, hefore and after surgical procedures, and during and after administration of sulfonamide.

(Continued on next page)



## PRESCRIPTION PRODUCTS (Cont.)

Administration: Adults: Two teaspoonfuls or more daily as directed. More if necessary. Infants and children: 1/2 to 1 teaspoonful, one or more times daily.

Form Supplied: Bottles of 8 and 16 fluidounces and 1 gallon.

Source: William R. Warner and Co., Inc., New York, N. Y.

#### **OTODYNE**

Description: Stable, hygroscopic analysis car drops containing Zolomine 1%, Eucupin dilhydrochloride, 0.1%, and polyethylene glycol, 9. S.

Indications: Rapid and sustained local relief of pain and itching associated with certain disorders of the middle and external ear.

Administration: As directed by physician.

Form Supplied: Dropper bottles of 1/2 fluidounce (15 cc.).

Source: White Laboratories, Inc., Newark, N. J.

## PENICILLIN TABLETS WITH TRIPLE SULFONAMIDES

Description: Tablets, each containing 100,000 units of crystalline potassium penicillin and 0.167 Gm. each of sulfadiazine, sulfamethazine, and sulfamerazine.

Indications: Mild streptocoecie, pneumocoecie, and gonocoecie infection.

Administration: As indicated by physician.

Form Supplied: Bottles of 100 and 1000 tablets.

Source: Lederle Laboratories Division, American

Cyanamid Company, New York, N. Y.

#### PENICOMBISUL

Description: Tablets, each containing: erystalline potassium penicillin-G, 100,000 units, and 0.166 Gm. each of sulfacetimide, sulfadiazine, and sulfamerazine, a total of 0.5 Gm. of sulfonamides.

Indications: In treatment of pneumonias.

Administration: Adults and older children: Six tablets initially followed by two tablets every four hours until temperature, pulse, and respiration have been normal for 48 hours. Six to eight tablets then may be given in divided doses for two or three days. Children up to fifty pounds: Average daily dose is one-quarter to one-half tablet per kilogram of body weight. Of the ealeulated dose, one-third is given initially and one-sixth thereafter every four hours until temperature, pulse, and respiration have been

normal for 48 hours. The dose may then be reduced to two-thirds or one-half the original maintenance dose for two or three days more.

Tablets should be prescribed from one-half to one hour, before or two or three hours after, eating.

Form Supplied: In bottles of 24 and 100 tablets.

Source: Sehering Corp., Bloomfield, N. J.

#### PROFERRIN

Description: Sterile solution of sacellarated iron oxide containing the equivalent of 20 mg. of available iron per each ec.

Indications: Indicated for therapy in iron deficiency anemia. Said to circumvent impaired intestinal absorption of oral iron.

Administration: Slow intravenous injection.

Form Supplied: 20-ee. vials.

Source: Sharp & Dohme, Inc., Philadelphia, Pa.

#### PROMETRON

Description: An oil solution, each cc. containing: estradiol benzoate, 2.5 mg., and crystalline progesterone, 12.5 mg.

Indications: Treatment of secondary amenorrhea of short duration due to endocrine deficiency.

Administration: Intramuscular injection of 1 ee., followed the next day by the same dose. Complete treatment is two injections.

Form Supplied: Single boxes of two 1-cc. ampuls, and in packages of three boxes.

Source: Schering Corp., Bloomfield, N. J.

#### SULFOSE

Description: A triple sulfonamide suspension containing: 0.166 Gm. each of sulfadiazine, sulfamerazine, and sulfamethazine per each 5-ec. teaspoonful, and alumina gel as a suspending agent. Each tea-

spoonful contains 0.5 Gm. total sulfonamides.

Indications: Supplies adequate and protracted sulfonamide levels in the blood in sulfonamide

therapy.

Administration: Two and one-half tablespoonfuls initially, followed by two teaspoonfuls every six hours. Children: Reduce dosage according to body weight.

Form Supplied. Bottles of 1 pint.

Source: Wyeth, Inc., Philadelphia, Pa.

#### TRIMETOSE

Description: A liquid, each 4-ee. teaspoonful containing: trimeton malcate, 7.5 mg.; ammonium chloride, 104.8 mg.; sodium eitrate, 43.0 mg.; and ehloroform, 17.5 mg. Contains 7 per cent alcohol.



Indications: In control of coughs due to colds.

Administration: Adults: One to two teaspoonfuls three to four times daily. Children: Six to twelve years, one-half adult dosage; under six years, as prescribed by physician.

Form Supplied: Bottles of 16 ounces. Source: Schering Corp., Bloomfield, N. J.

#### TRISULFALLIN

Description: Sulfa-penicillin compound containing Sulfadiazine, Sulfamethazine, and Sulfamerazinc with potassium penicillin G.

Indications: Treatment of infections in which the oral administration of penicillin and sulfonamides is indicated.

Administration: Orally, as directed by physician. Form Supplied: Bottles of 100, 500, and 1000. . Source: Irwin, Neisler & Co., Decatur, Ill.

#### VERACOLATE

Description: Tablets, each containing: bile salts, 1.07 gr.; cascara sagrada extract, 1.00 gr.; phonolphtbalein, 0.50 gr.; and oleoresin capsicum, 0.05 min.

Indications: Indicated in discases of the biliary tract uncomplicated with acute hcpatitis, functional hcpatic insufficiency, chronic passive congestion of the liver, and adjunct for increased absorption of fat-soluble vitamins. Contraindicated in presence of complete biliary obstruction, acute hepatitis, peptic ulcer, or colitis.

Administration: One tablet three times a day or two tablets at bedtime.

Form Supplied: Bottles of 50 and 100 tablets. Source: Marcy Laboratories, Inc., New York.

#### VERACOLATE MODIFIED

Description: Tablets modified, each containing: bile salts, 1.00 gr.; phenolphthalein, 0.25 gr.; pepsin, 2.00 gr.; pancreatin, 2.00 gr.; and oleoresin capsicum, 0.025 min.

Indications: Same as for Veracolate.

Administration: Two tablets two hours after neals.

Form Supplied: Bottles of 50 and 100 tablets. Source: Marcy Laboratories, Inc., New York.

#### VITAMIN K ANALOGUE

Description: A solution, each 2 ec. containing 75 mg. of tetrasodium 2-methyl-1,4-naphthohydro-quinone diphosphorie ester.

Form Supplied: Sterile solution in 2-ce. ampules. Action: Indicated for counteracting overdosage phenomena of Dieumarol.

Administration: Two ee. (75 mg.) intravenously. Source: The Upjohn Co., Kalamazoo, Mich.

## WYCHOL CAPSULES (Companion item to Wychol syrup)

Description: Capsules, each containing: choline bitartrate, 0.5 Gm., and inositol, 0.036 Gm.

Indications: Lipotropic therapy for use in diseases such as liver cirrhosis and arterioselerosis.

Administration: Six capsules daily in low dosage schedules (equivalent to 1½ teaspoonfuls of Wychol syrup). Syrup is more convenient in high dosage schedules.

Form Supplied: Bottles of 100 and 100 capsules. Source: Wyeth, Inc., Philadelphia, Pa.

#### WYDASE VETERINARY

Description: Lyophilized hyaluronidase in veterinary form.

Indications: Promotes absorption of subcutaneously injected fluids in animals.

Administration: As directed.

Form Supplied: Vitals of 150 TR (Turbidity-reducing) units.

Source: Wyeth, Inc., Philadelphia, Pa.

## Other New Products

(Chemicals, clinical trial drugs, diagnostic aids, and equipment)

#### New Dropper Bottles

A new dropper bottle containing an unbreakable pipette of plastic has been announced by the Armstrong Cork Company, Lancaster, Pa.

Advantages of the plastic pipette are: elimination of breakage in transit, assembly, and use; has no effect on pH of solutions; the moisture-repellent characteristics cause the inside diameter of the pipette to determine the size of the drop.

The pipette conforms to U. S. P. specifications for delivery of medicine droppers. The bottles are available in  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1, and 2-ounce sizes.

#### Liquid and Semi-Paste Mixer

A new 1000-gallon direct motor driven liquid and semi-paste mixer has been designed by Charles Ross & Son Company, Brooklyn, N. Y.

The mixer is available in sizes of from 50 to 1500 gallons or larger. The mixer, with slight changes in the stirrer arrangement, can also be utilized as an agitated storage tank. Paste or liquid type stirrers can be furnished.



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Council descriptions of new drug products only are published regularly in This Journal as they are accepted. Rules upon which the Council bases its action appeared in the July (7:320) 1946 issue, and may be secured in pamphlet form upon request to the Secretary, Council on Pharmacy and Chemistry, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.

HEXACHLOROPHENE.-Gamophen (Ethicon).—Hex-O-San (Cole).— $C_{13}H_6Cl_6O_2$ .—M. 406.92.—2,2'-Methylenebis-(3,5,6-trichloro)phenol. -2,2'-Dihydroxy-3,5,6,3',5',6'-hexachlorodiphenylmethane.—The structural formula for bexachloropliene may be represented as follows:

Actions and Uses .- Hexachlorophene is incorporated in soaps, detergents, oils and other vehicles for topical application to reduce the numbers and to inbibit the metabolism of microorganisms which occur naturally and pathogenically in the skin bacterial flora.

Residual amounts of hexachlorophene, which are adsorbed on the skin, maintain a reduction in numbers of bacteria. Optimum results are obtained only with exclusive application of the agent to the skin surface; substitution of other cleansing agents, including water, removes the adsorbed hexachlorophene with a resultant rapid increase in numbers and metabolism of microorganisms. The activity of hexachloropbene, like that of other antibacterial agents, is considerably reduced by blood serum and other organic matter.

Hexachlorophene is effective against gram-positive bacteria: the gram-negative organisms are much more resistant to its action. No evidence is presently available concerning its efficacy against acid-fast bacteria, fungi, bacterial spores, virus or spirochetes.

Products containing hexachlorophene are used for p coperative scrubbing, and preoperative and post-

operative preparation of patients' skin. When used continually hexachlorophene is also an effective prophylactic agent in decreasing the incidence and severity of pyogenic skin infections including carbuncles, furuncles, miliaria, ammoniacal dermatitis, impetigo and seborrheic dermatitis ("Cradle cap"). Neither hexacblorophene nor any other chemical agent should be relied on as a substitute for mechanical cleansing of the skin.

Dosage.—For use as an antibacterial agent hexachlorophene may be incorporated in a number of vebicles, viz., soap, detergents, creams and oils. Concentrations of 2 to 3 per cent (anhydrous weight basis) are efficacious in reducing the number of microorganisms inherent in the skin bacterial flora. Concentrations in excess of 3 per cent bave not yet been shown to be more effective.

Physical Properties. Hexnchlorophene is nn odorless (or liss a slight, phenolic odor), white to light tm, crystalline powder, which melts hetween 161° and 167° C. It is freely soluble in acetone, alcohol and ether; soluble in chloroform, and insolubl

[For more detailed information regarding action and uses and for tests and standards, see J. Am. Med. Assoc., 145: 563 (1951).]

Surgical Soap Hex-O-San: 3.78-liter and 18.9liter cans and 56.7-liter, 113.5-liter and 208.1-liter drums. A soap containing 2 per cent hexachlorophene. Cole Laboratories, Inc., Long Island City, N. Y.

Surgical Soap Gamophen: 127.5-Gm. cakes. A soap containing 2 per cent hexachlorophenc. Ethicon Suture Laboratorics, Inc., New Brunswick, N. J.

Germa-Medica Surgical Soap Hexachlorophene: 3.78-liter bottles. A soap containing 2.5 per cent hexachlorophene. U.S. Trademark 213,093. Huntington Laboratories, Inc., Huntington, Ind.

SODIUM p-AMINOSALICYLATE.—Pasem Sodium—(Massengill).

Actions and Uses.—See monograph on p-Aminosalicylic Acid.

Dosage.—3 Gm. five times daily for a total dose of 15 Gm. every 24 hours. The duration of treatment is the same as with p-aminosalicylic acid.

Physical Properties: Sodium p-aminosalicylate is n white to pale yellow, practically odorless, crystalline powder. It is freely soluble in water, sparingly soluble in alcohol and practically insoluble in ether. One gram dissolved in 50 ml. of water to give a clear solution which is colorless or nearly so. The solution has a pH between 7.0 and 7.5.

[For more detailed information regarding action and uses nnd for tests and standards, sec J. Am. Med. Assoc., 145: 905 (1951).]

Powder Sodium Para-Aminosalicylate: 454-Gm. bottles. American Pharmaceutical Company, New York, N. Y.

Tablets Sodium Para-Aminosalicylate: 0.5 Gm. American Pharmaceutical Company, New York,

Capsules Pasem Sodium: 0.5 Gm. S. E. Massengill Company, Bristol, Tenn.



Brief Facts
about rthritis...

MAN'S GREATEST CRIPPLER

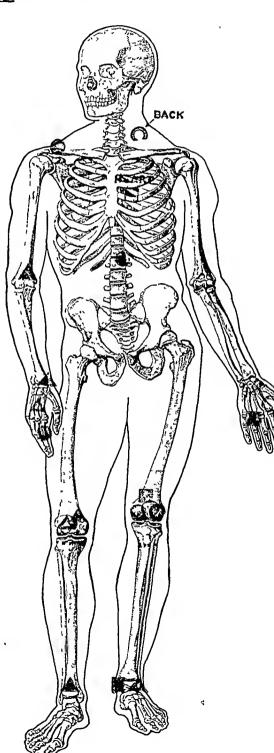
Seven and a half million Americans—and untold millions elsewhere in the world—suffer from some form of this disease. Here are simple, straightforward facts about it that you should know.

WITH the advent of ACTH and Cortisone, more public attention has been directed toward arthritis and other rheumatic diseases than ever before. Today, for the first time, there is considerably more hope for the seven and a half million sufferers in the nation, but there is still a long way to go.

These people—and millions clsewhere—are far more fortunate than the generations that have preceded them, for until now there was little that could be done to relieve the agonizing pann Even The Java Ape Man had arthritis to a degree, for his bones show the crusted overgrowth signifying the condition. The bones of dinosaurs and those of Eohippus, the dwarf horse, bear similar crusts, proof that they too suffered in pain. As a matter of fact, human remains from all ages seem to bear the marks of arthritis, according to The Arthritis and Rheumatism Foundation, in the Public Affairs Pamphlet "Arthritis and the Miracle Drugs," from which the material on these pages has been adapted.

(Continued on page 230)

TYPE OF	WHO	WHERE
ARTHRITIS	GETS IT	IT BEGINS
RHEUMATOIO	MORE WOMEN THAN MEN FROM 35-40 YEARS OLO	Δ
OSTEOAR- THRITIS	OLDER PEOPLE	0
ARTHRITIS FROM INJURY, INFECTION	ALL AGES	AT SITE OF INJURY, INFECTION
RHEUMATIC FEVER	YOUNG PEOPLE AND CHILDREN	
GOUT	MEN OVER 30	Δ
FIBROSITIS .	ALL AGES	0
PSYCHOGENIC ARTHRITIS	ALL AGES	STIFF, PAINF MUSCLES AN TENDONS



#### Arthritis · · · · · · · · from page 229

#### Rheumatoid Arthritis

Rheumatoid arthritis is, by all odds, the most crippling of the two types of the disease. It generally strikes between the ages of 25 to 50, while osteoarthritis generally occurs in old age, or as a result of heavy wear and tear on the joints. Rheumatoid usually starts in one joint, such as the hands or feet, knees, ankles, elbows, and wrists. Sometimes slight swellings come and go over a period of years, and then, without apparent warning, they return, affecting one or more joints, often in different parts of the body, and stay for months or many years. Such a recurrence does not mean, however, that the person is sentenced to a life of pain. Often the condition stops as quickly as it began, and for no apparent reason.

Rheumatoid arthritis is described as "a chronic inflammation of the connective tissue of joints and their sheaths which bind muscles and other tissue together." It is not merely a disease of the joints, but a general and systematic illness that may involve the heart, nerves, muscles, and other tissues. The cause, as yet, is unknown, but hundreds of research scientists are constantly work-

## 10 RULES FOR THE ARTHRITIC

- 1 Don't attempt self-medication. See your physician and follow orders.
- 2 Don't be fear ridden. Enough is known to permit normal activities.
- 3 Try to live free of tension, and get plenty of rest and sleep.
- 4 Don't experiment with your diet. Consult your physician on all foods.
- Get plenty of sunshine, but have the physician specify degree of heat treatments.
- 6 Avoid strain and pressure on the affected parts. Follow all exercises implicitly.
- 7 Avoid cold, wet weather and chills. In bad weather, keep warm and dry.
- 8 Don't overeat or exceed your normal weight for your age and height.
- On't listen to "Old Wives' Tales" and fancy cures. Your physician knows best.
- 10 If you don't respond to treatment, adjust yourself, and don't lose hope.

ing to find out. Naturally, there are a wide variety of theories as to the cause, ranging from infection, metabolism, emotional instability, and allergy. Yet, despite this wide range of thought, progress is being made in the search for the major cause.

Successful treatment has been reported in many cases, particularly through the ACTH and Cortisone research. However, more clinical work, and greater production of these two products, as well as several other promising drugs, must be accomplished before any definite hope can be held out to millions who suffer from rheumatoid arthritis.

#### Osteoarthritis

Osteoarthritis is quite different from the rheumatoid type, for it is merely a disease of the aging, or general degeneration and breakdown caused by advancing age. Although it is responsible for an incalculable number of aches and pains, and discomfort in the extreme, it is considerably less serious than the other type of arthritis.

There are several distinct differences between the two. While rheumatoid arthritis often progresses at a fast rate, osteoarthritis moves slowly. Moreover, clinical study has shown that the new drugs, so promising with the rheumatoid type, have far less effect on this type. Exercise for ostcoarthritis joints makes the stiffness worse, so rest of the affected areas is demanded if relief is to come. Hot soaks, heat lamp treatments, and massage, and splints and braces often help people with this condition, and in some instances operations can correct the joint defects. In any event, osteoarthritis is not nearly as crippling, nor as severe, and much can be done to reduce the severity. An optimistic attitude is one of the best treatments, according to specialists in the field, and since there is considerable chance of improvement, this optimistic attitude is easily justified.

#### Rheumatic Fever

One of the more significant kinds of joint diseases, the arthritis resulting from rheumatic fever is generally short lived and clears up completely after the illness. However, its effect on the heart is extremely important and usually permanent. Moreover, children may suffer repeated attacks of rheumatic fever, thus making the condition even more damaging. The arthritic condition may be slight and transient and doctors now theorize that rheumatic fever is caused by or follows a streptococcal infection.

Since ACTH and Cortisone have shown great promise in relieving the arthritis that accompanies the condition, current research is being directed toward the possibility that they can be helpful in preventing heart damage in people suffering from rheumatic fever.

#### Gout

Mainly a discase of men, and of people over 30, this is another medically puzzling form of arthritis. However, colchinine has been found to be successful in a great number of cases. Other new drugs also show hope, and aspirin helps pain.

Gout is sporadic, coming at odd intervals, and lasting for varying periods of time. Generally, it attacks the joints of the great toe, but it has also been known to strike at other joints of the hands, feet, and ankles. Gout too is more hazardous than merely causing pain, for it has often affected the kidneys, heart, and brain of men who have borne its pain for an extended period of years.

What is known about gout is considerable, but the cause has not definitely been fixed. Overindulgence in alcohol and food seems to account for a large number of cases, and emotional stress has been found to have some bearing on the attacks. However, there has been no way found for the sufferer to avoid, or even to foresee, an attack.

#### Other Forms of Arthritis

Milder in total effect, but no less painful, are the other forms of arthritis caused by injury, infection, or emotional disturbance. Fortunately, arthritis as a result of infection is on the wane because of the success of the antibiotics in treating infections. Psychogenic forms are the result of worry, fear, grief, and other emotional upheavals.

In World War II this was one of the commonest types of arthritis.

Fibrositis is another large class, covering rheumatic pains in the muscles, tendons, and other tissues in the back, shoulders, thighs, and hands. A painful stiff neck, or pains on turning, stooping, or some similar movement may be symptoms of fibrositis. These ailments may be painful, and intermittent, but they never cripple or deform, as do the more serious types of arthritis. Rest, inactivity, heat, and aspirin generally relieve the pain and speed recovery.

The future is far more promising for arthritic sufferers than ever before, but it still remains for all sufferers to see their doctors and abide rigidly by the directions that they give. Rest, proper dict, hot packs, and aspirin still head the list of common treatment, but the new drugs now in use, and those now in experimental stages, may well signal the final release from pain for the hundreds of millions of sufferers the world over.

# Public Health Service Grants to Aid Cancer Control

The search for chemicals to control cancer by killing cancer cells in the body without harming normal tissues will be continued under Public Health Service grants announced recently.

Support for extensive chemotherapy studies was included in grants totaling \$1,305,930, awarded to assist cancer research in 62 hospitals, universities, and other non-Federal institutions in 24 states, the District of Columbia, and three foreign countries.

The grants were made by the Cancer Institute of the National Institutes of Health. They were approved by Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, upon recommendation of the National Advisory Cancer Council.

Representing clinical as well as laboratory attacks on the problem, cancer chemotherapy studies in 13 research centers and hospitals received assistance. To be continued by a grant to The Children's Medical Center, Boston, are Dr. Sidney Farber's studies on human cancer patients, particularly children with acute leukemia. In treating these cases Doctor Farber is using anti-folics and other compounds that have been tested on malignancies in animals and have been found effective.

The screening of folic acid, A-methopterin and other anti-leukemic agents will be carried forward by Dr. Howard E. Skipper through a grant to the Southern Research Institute in Birmingham,

Attempts to synthesize colchicine, capable of stopping cell division and slowing down tumor growth, will be extended through a grant to Dr. C. David Gutsche at Washington University, St. Louis. Colchicine has never been manufactured in the laboratory. In its present form colchicine is not satisfactory for treatment, since it is too toxic when given in doses large enough to inhibit tumors. Doctor Gutsche hopes to overcome the factor of toxicity and to solve several other problems affecting the drug's usefulness. seeks to determine its chemical structure and then synthesize either colchicine or its components. In the process he expects to find among the new synthetic compounds some which will keep the tumor-damaging powers of the parent substance, colchicine, but lose the harmful toxic effect.

In other areas of research, grants were made for special studies on genetic mutations and on the cause of stomach cancer.

## what medicine has learned

in



By Col. Lawrence A. Potter

Assistant Chief, Medical Plans and Operations Division, Office of the Surgeon General, Department of the Army.

Aided immeasurably by drugs that were unknown at the start of World War II, the military medical services have kept the casualty rates low, according to this report by Col. Potter, presented first at the recent meeting of the American Pharmaceutical Manufacturer's Association in Florida. This article is the first official publication of the full Korean medical experience.

The current field medical support available in the Far East for support of the 8th Army in Korea now consists of three (3) Evacuation Hospitals (SM), five (5) Mobile Surgical Hospitals, four (4) Field Hospitals, five (5) Separate Ambulance Companies, two (2) Separate Collecting Companies, two (2) Separate Clearing Companies, one (1) Army Medical Depot, two (2) 500-bed Station Hospitals, and the required number of detachments of various sorts. In addition there are three (3) Navy hospital ships in the area prepared to support the operation at any time. It should be pointed out that a Navy hospital ship is truly a floating hospital in contradistinction to the so-called hospital ships that the Army operated during World War II and which should more appropriately have been designated ambulance ships During the period the 8th Army was stationed within the Naktong perimeter, a Navy hospital ship was docked in Pusan where the hospital trains could be brought right on to the dock and the patients unloaded from the train and with a few steps be placed on the hospital ship. When these patients were ready for evacuation they were brought back off the hospital ship, moved by train to the air field and flown to Japan. There are also in support of the UN forces in Korea, a Swedish Red Cross hospital, roughly the equivalent of one-half a Field Hospital, and an Indian medical unit, roughly the equivalent of a Field Hospital.

Units other than U. S forces for which the medical service of the U. S. Army is providing evacuation and hospitalization, are two (2) British brigades, a Turkish brigade and forces roughly the equivalent of an American battalion from France, the Netherlands, Greece, the Philippines, Thailand, Belgium, Australia, Canada, and New Zealand.

The United States Army has not provided medical service for the Army of the Republic of Korea since the load is too great to take on this very large job.

Our hospital elements, however, in addition to their other great responsibilities, are doing a great deal of the surgery on wounded members of the Republic of Korea Army. Upon completion of surgery these cases are turned over to Republic of Korea hospitals.

Evacuation within Korea is carried out in the forward areas by jeep ambulances backed up by standard <sup>3</sup>/<sub>4</sub> Army field ambulance and by the use of helicopters and light liaison aircraft to the extent of their availability for the rapid transportation of severely wounded individuals or those from isolated positions to Mobile Surgical Hospitals where life-saving surgery is available.



Medical Corpsmen roam front line areas, speed wounded back to first aid stations

#### Antibiotics Lower Mortality

An interesting factor of medical support of the Korean operation has been the apparent lowering of the mortality rate of wounded patients in hospitals as compared with World War II experience. It must be understood that exact statistical values of this factor cannot be determined until the Korean operation is over. However, it definitely appears that the number of wounded dying after they are in the hands of the medical service is less than 2½%. The average experience of World War II was approximately 4%, and, in World War I, 8% of the wounded died after they had entered the hospital evacuation chain of the medical service.

It is interesting to discuss the various factors which contribute to this lowering of mortality. High on the list must be placed the fact that we have had the new biologicals available throughout the medical system from the very beginning of this operation; whereas in World War II, penicillin did not become available throughout the medical service until the war was well along. Penicillin has been available from the start in this present conflict along with chloromycetin, aureomycin, streptomycin, and terramycin. This same condition pertains to another factor of the lowering of mortality, namely, the availability of whole blood The providing of whole blood started during World War II. It has been available in the forward area hospitals in Korea from the very start of this operation.

A third factor, related directly to the specialist training program of the Army instituted in 1946, has been the complete staffing of the forward area hospitals with highly qualified surgeons and orthopedists, to an extend probably not equaled in World War II, in the immediate support of a force of the size that our Army force was in September in the Naktong perimeter. The presence of the well-organized base in Japan, coupled with adequate air evacuation facilities that brought patients from the forward hospitals to the base hospitals in a matter of minutes, has had a definite influence. The helicopter will play an ever-increasing part in rapidly, smoothly, and comfortably moving the seriously wounded from the immediate front in a matter of minutes to surgical hospitals normally an hour or more distance by ground transportation from the battalion aid station.



Helicopters have been one of the big keys in rapid transport of wounded from the front

Fourth Field Hospital, Taegu, Korea was important base for care of severely wounded

#### Methadon

Methadon as a substitute for morphine and which has been tested by Dr. Henry K. Beecher at the Massachusetts General Hospital, Boston, has now been given a rather thorough field test by Dr. Beecher, who went out to Japan and Korea as an Army consultant. He confirmed in the field his findings in this country. When used on wounded soldiers, methadon had the same effect milligram for milligram as morphine. While the racemic form is now on the market we lean definitely in the Army to the iso-levo form because it apparently produces far less nausea and vomiting than the racemic form. This factor is of considerable importance in the Army because of the required movement to the rear of our casualities while still under the influence of narcotics and which may be by ambulance but which may as well be by plane or ship. Chloroquin, which is now the standard Army malaria suppressant, was used effectively in Korea last summer, its first use under actual war conditions, and it has proved effective and desirable. From a technical standpoint a suppressant that requires dosage only once a week can be more effectively supervised in its administration than an item requiring daily dosages, because at some time during each week an individual unit such as a company will be out of the immediate forward line. Chloroquin has its effect on parasites in the blood stream but does not affect the tissue stage producing a clinical cure but often allowing the plasmodium of malaria to persist and to cause relapses over long periods. A drug or combination of drugs effective against tissue stages as well as blood stages is re-



quired. We believe that the new drug primaquin will serve this purpose when coupled with chloroquin in the treatment of malaria. This will substantially increase the days of duty and effective readiness for combat of soldiers required to live or fight in malaria areas. Plans are being carried out now to field test primaquin in one of the Central American countries.

#### Plasma Substitutes

The wide field of plasma substitutes is of paramount importance to the Army, and studies being done in the development of this field are being closely watched by our Army Medical Research and Development people. No definite selection has as yet been made among the several tested nor will such a selection be made until the story is all in.

High mention among those advanced are dextran, polyvinylpyrolidone, and gelatin. Plasma substitutes of this sort, while not replacing plasma when it is available and never replacing whole blood, will nevertheless provide us with the assurance of having always at hand sufficient quantities of items capable of raising the osmotic pressure of blood fluid and assuring that we always have this effect at hand in combating traumatic shock.

An idoglobulin compound has been developed that may replace the chlorine-type tablets for the emergency sterilization of water in the field such as in the soldier's canteen when he requires water and is away from a sanitary source of supply. The taste factor seems to be no worse than that of chlorine residual tablets, but it does give a brown coloring to the water noticeable when drinking from a glass but not when drinking from a canteen. If used in cooking, it discolors starchy foods. Its ability to sterilize water has been demonstrated together with its possible greater effect on the cysts of the amoeba. Field acceptance tests with troops have not yet been performed.

Terramycin, as mentioned previously, is a biological which alone or in conjunction with other biologicals serves to prevent debilitating infection of war wounds and injuries in forward areas where laboratory tests for determining the identity of specific infections cannot be made.

The Army is very much interested in developing the use of intra-medullary pins for the fastening of long bone fractures. These pins are inserted into the medullary cavity of fractured long bones

US forces supply first aid to Korcan army but Korea supplies its own hospital facilities down through the fracture site into the distal portion of the fractured bone, aligning the fracture exactly and giving stability so that the fracture heals without the use of a cast. Movement of the leg is permitted, thus preventing stiffening and wasting away of muscles of the fractured part which occurs when these fractures are placed in a cast. The total period required for the individual once again to become fit for duty is greatly shortened. Another factor is that in fractures of the long bone, the use of the intra-medullary pin permits much earlier weight bearing. weight-bearing pressure at the fracture site stimulates the healing process. After the fracture is adequately healed the pins are removed. Along this same line, a casein resin material is being evaluated which might replace the plaster of Paris type cast with a lighter and much stronger material.

#### New Burn Dressings

As another step in the continued study for the treatment of burns, a requirement emphasized for both military and civilian use in the face of the terrific burn-producing potentialities of the atomic explosion, a new type of burn dressing has been developed and is being evaluated. dressing is 19 x 36 inches and has on the burn side a very fine gauze covering, a thick pad of highly absorbent cheap cotton material and backed up by many layers of an impermeable cellulose material-each sheet being somewhat like facial tissue with an outer, water-repellant layer to prevent wetting of the bandage under field conditions. The impermeable cellulose layers prevent the exudates of a burn or wound from soaking through the bandage and providing an excellent culture medium on the outside of the bandage and a tract communicating with the wound from the outside on which harmful bacteria can grow and along which they can find their way into the burn or wound; the harmful bacteria in this case being those which originate in the throat and nasal passages of the individuals coming into close contact with the patient. The size of the bandage provides a single unbroken coverage of the burned area and gives integrated protection not possible by the application of a number of smaller pads. This large dressing when applied about one of the limbs has the additional advantage of providing a considerable measure of splinting. Recently there has come to our attention an inexpensive gauze bandage developed by the Department of Agriculture and treated with sodium-hydroxide. The treatment has the effect of crinkling the individual fibers of the threads in the gauze so that the gauze tends first to adhere to itself or to its layers, and, secondly, permits it to stretch in either direction. The two-way stretch and adherent quality of this gauze allow it to be effectively applied with sufficient tightness to hold the dressing in place, without decorating the individual with a number of safety pins. This is, of course, an untested item not in production but we are interested in it because of the difficulty we have had in trying to devise a bandage which would hold this large burn bandage in place. The present bandages that derive elasticity through the introduction of latex or rubber fibers into the bandage are expensive.

The value of ACTH to war medicine is being investigated in the Far East. It is being used in the treatment of burns. Its value in the treatment of cold injuries is being investigated as well as in wounds where nerve injury is involved. It is being used to prevent the overgrowth of scar tissue that makes difficult the repair of a nerve or when repaired may tend to cause pressure or restrict growths affecting the nerve.

#### Dispensable Injection Devices

Dispensable sterile injection devices are being investigated in order to improve packaging of items in such a way as to deliver the required dosages of drugs to the patient on the field of combat. One such device is the ampin with a sterile needle attached by a rubber tube to a glass container that can be prefilled with any type of drug. The container is partially filled with a drug and the remaining space is occupied by helium gas under pressure. When the needle is inserted in the skin, a seal is broken that releases the pressure of the gas, forcing the drug through the needle into the tissue. Another device is the well-known syrette used during World War II as a container for morphine. Improvement of this device and the widening of its use are being investigated.

#### Actidione

One of those interesting side lines that develop in research has been the discovery of the ratrepelling effects of actidione, a by-product in the preparation of streptomycin. While actidione is still expensive, a sufficient demand might lead to mass production and lower cost. It could be used as a protective coat on the outer layers of packages and containers and could result in an enormous reduction in the world rat bill. It would have another use such as a protection of fruit trees from gnawing by deer and the protection of electric wires from gnawing by rodents. It may also be used to control plant disease,



FROM THE SECRETARY'S DIARY
FOR MARCH

This first week end in March finds spring "just around the corner," for the temperature is down and the atmosphere is cold and raw. Yesterday a visit with President Adams of the American Council on Education in the new home of the Council on Massachusetts Avenue, which provides ample room for expansion of the Council's activities. Now answering questions on pharmacy law enforcement from Pennsylvania and more distant points and wishing pharmacy laws everywhere were uniform. The day winds up with a terrific rainstorm in which it is easy to lose one's bearings among Washington's diagonal streets and circles.

The dictaphone came in handy yesterday, a Sunday, for last minute instructions and disposing of accumulated mail prior to departure for Des Moines via Chicago. Now busy on the telephone from the Palmer House to A. M. A., American Hospital Association, N. A. B. P., the College of Surgeons, and other groups, arranging for appointments on the return trip. Also a fruitful conference with Richard M. Jones, Director of the Blue Cross Commission, on pharmacy provisions in these plans. In the early afternoon departing for the Iowa convention at Des Moines and found Bob Swain assigned to the adjoining seat in the pullman car. Conversing on the problems of pharmacy shortened the trip appreciably. And now to the Savery Hotel in time to listen to Iowa's Pharmacist Governor Beardsley, who addressed a dinner session which was followed by most enjoyable entertainment.

This morning addressing the Iowa Pharmaceutical Association on "Pharmacy in the Nation's Service," and then at lunch with some of Iowa's outstanding pharmacists and pharmaceutical educators, including Past Honorary President George Judisch, Emeri-

tus Dean Teeters, Prof. Louis Zopf, and, as a special guest, Mrs. Earl R. Serles, president of the A. Ph. A. Women's Auxiliary. In the afternoon participating in a panel discussion on pharmacy's current problems with Dr. Robert L. Swain as moderator, and Joe Shine, Frank Moudry, and State Medical Association Secretary Phillips included in the panel. Late in the afternoon to view Drake University's new pharmacy building with Dcan Benton as guide. Following a most enjoyable banquet of the Iowa Association, entraining for Chicago at night.

All this day in Chicago conferring with A. M. A. staff members including Dr. Austin Smith and Doctors Stormont and Wermer of the A. M. A. Council on Pharmacy and Chemistry. To lunch with Dr. Cruttenden and Messrs. Bain and Doty of the American Dental Association staff, discussing professional relations. Also a meeting with Dr. Ferguson and other staff members of the American College of Surgeons, with special reference to hospital pharmacy standards. Finally a chat with Messrs. Deno and Costello on business of the American Council on Pharmaceutical Education before ending the day en route to Washington via the "Capitol Limited."

Most of today spent in the office catching up with editorial and administrative affairs and late in the afternoon conferring with representatives of the Arthritis and Rheumatism Foundation, for whom we may work out a health information program similar to that carried on for Cancer and Heart Associations.

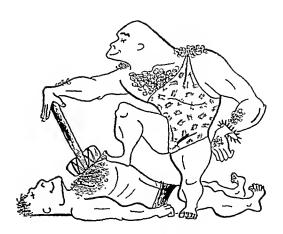
Today a visit from Dr. Doull of the Leonard Wood Foundation, which is specializing on testing drugs for the treatment of leprosy and found many problems of interest to pharmacy in this activity.

Yesterday and today attending the Conference on Acceleration of College Courses sponsored by the American Council on Education and it appears that the educators believe in accelerating programs for individuals but not for institutions. The impact of the acceleration problem will probably not be felt until men of college age begin to return from the war and will want to make up lost time.

Now going over current programs with the staff. In the late morning a conference with Oscar Ewing to discuss

(Continued on Page 255)

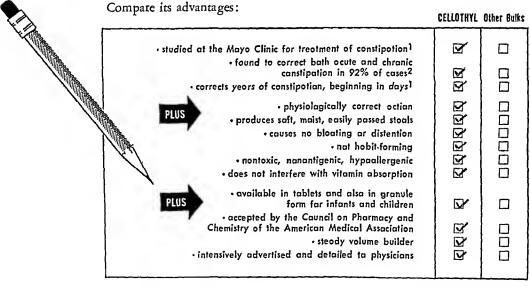
# The battle of the **BULKS**



To you it must seem that every pharmaceutical house has recently marketed a "bulk" for use in constipation

The originators of CELLOTHYL—the first methylcellulose tablet—are truly flattered by the present widespread influx of similar bulk products, for imitation is an impressive tribute. However, none of the deviations and variations has attained the high degree of professional acceptance accorded Cellothyl since it was offered over 3 years ago as a significant advance in constipation correction.

In the midst of this battle of the bulks, it is easy to see why CELLOTHYL is the leader.



#### CELLOTHYL Tablets (0.5 Gram)

site	your cost each	lair irade minimom
50's	\$ .60	\$ .89
100's	1.00	1.49
500's	4.00	5.95
5000's	32,00	48.00

#### CELLOTHYL Granules (for infants and children)

25 Gram	.54	.79
100 Gram	1.67	2.47

Gostroenterology 13:275, 1949.
 N. Y. Stote J. Med. 48:1822, 1948.

# Cellothyl®

especially prepared by the Chilcott Process

CHILCOTT

Laboratories DIVISION OF The Maltine Company

MORRIS PLAINS, NEW JERSEY

#### DEFERMENT FOR STUDENTS

PLANS for a nation-wide test which will afford registrants the opportunity to demonstrate their aptitude for college or university work were announced by Major General Lewis B. Hershey, Director of Selective Service. These test scores, or scholastic standing in college or university, will be used by local boards in determining the cligibility of registrants to be considered for occupational deferment as students.

Under the new plan, student deferments will be based upon either capacity to learn as demonstrated by the results of a nation-wide test or upon scholastic performance as evidenced by class standing. These two criteria are variables which may be raised or lowered to either increase or diminish the number of students in training, as the national interest may require.

The tests, to be administered by the Educational Testing Service of Princeton, New Jersey, will be given at approximately 1000 examination centers throughout the United States and its territories. Printed instructions concerning the test and application blanks will be available through the 4000 local boards about April 12 or shortly thereafter.

The scores and class standing standards announced by General Hershey are as follows:

Professional School Student—Certificate from school that he is satisfactorily pursuing a full-time course of instruction leading to his graduation.

Graduate School Student—Certificate from school that he currently is meeting degree requirements and is expected to obtain his degree.

Student Seeking Admission to Graduate School—(a) Scholastic standing in upper half of male members of his class or, (b) score of 75 or better on test. (Equal to a score of better than 120 on AFQT Armed Forces Qualifications Test.)

Five- or Six-Year Undergraduate Student—
(a) Scholastic standing in the upper threefourths of the male members of his class or, (b)
score of 70 or better on tests. (Equal to 120 on
AFQT.)

Student Entering Senior Year—(a) Scholastic standing—upper three-fourths of the male

members of his junior class or, (b) score of 70 or more (equal to 120 on AFOT).

Students Entering Junior Year—(a) Scholastic standing—upper two-thirds of the male members of his sophomore class or, (b) score of 70 or more (equal to 120 on AFQT).

Students Entering Sophomore Year—(a) Scholastic standing—upper one-half of the male members of his freshman clsss or, (b) score of 70 ore more (equal to AFQT).

The Executive Order issued by the President modifies the plan proposed by the Director of Selective Service in that no provision is made at the present time for testing the high-school graduates. Plans thus far announced will not this year materially affect the opportunity of high-school graduates to enter college next fall.

The tests will be given on May 26, June 16, and June 30, 1951, at approximately 1000 prescribed educational institutions located throughout the United States and its territories. The tests will be given by the Educational Testing Service at no cost to the registrant. The registrant will be required to pay only for his own transportation costs to and from the testing center.

#### "WATERED" UMT BILL VOTED

Close on the heels of the announcement of plans for deferment of college students, the House voted to drop the Administration's proposal for Universal Military Training in favor of a much weaker version, despite a last minute plea by General George C. Marshall, Secretary of Defense.

Marshall labeled the House bill an "emasculated" version of the measure approved earlier by the Senate. "If UMT were authorized now," General Marshall told reporters, "it might be possible by summer of next year to start cutting back the time draftees spend in uniform."

The House version provides for a UMT commission to prepare detailed recommendations for a training program and submit it to Congress within six months. Within 45 days thereafter, the Senate and House Armed Services Committees must bring out privileged legislation on the subject. That bill must be enacted before UMT could go into effect.

## SECURITY

## SERVICES TO SHARE INTELLIGENT MEN EQUALLY

The Army, Navy and Air Force will begin to share equitably, in proportion to their sizes, those volunteers and draftees with superior mental qualifications. The new policy is aimed at ending a situation in which the Navy and Air Force have been getting the lion's share of the better equipped newcomers to an expanding military establishment.

Concurrently, the Secretary of Defense General George C. Marshall, has directed the Army, Navy, Air Force, and Marine Corps to adopt standard physical requirements. Describing the new plan for "qualitative distribution of military manpower" as a forward step in unification, General Marshall said that "to concentrate the qualities of leadership or technical pre-eminence in one or more branches of the service is detrimental to our total strength in terms of efficiency."

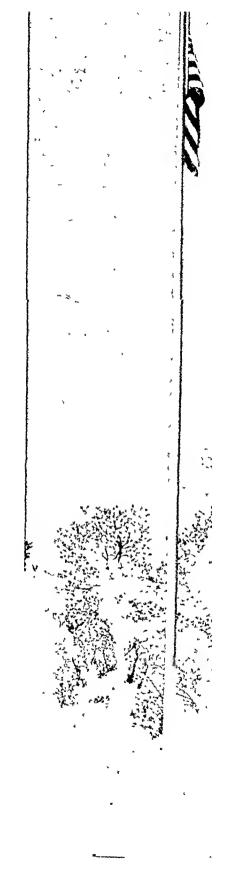
After May 1, no single service may accept toward its assigned enlistment quota more than 8 per cent of those men who qualify for the highest mental group, or those who achieve a score on the Armed Forces Qualification Test of 98 to 100. All men, whether volunteers or draftees, will be classified into groupings according to the scores they receive on the test, and each service will receive a proportionate share of each group.

Men can still volunteer for the service of their choice, but a would-be recruit for the Air Force or Navy with a high score might find the service he selects overfilled with men of his group. If the draft is then "breathing down his neck" he may find himself in the Army.

## FIRST SCIENCE FOUNDATION DIRECTOR NAMED

A pioncer in governmental support of fundamental scientific research has been selected by President Truman to be first director of the National Science Foundation. He is Dr. Alan T. Waterman, 58, former deputy chief and chief scientist of the Office of Naval Research.

The National Science Foundation was designed to further the search for basic knowledge. It is expected that it will finance research projects and create fellowships for producing new scientists.



## TO BE A GOOD TEACHER

Whether you are a professor, a student, or a practicing pharmacist long since out of school, Professor Mittelstaedt's evaluation of the responsibility of educational leadership will make you think.

## by Stanley G. Mittelstaedt

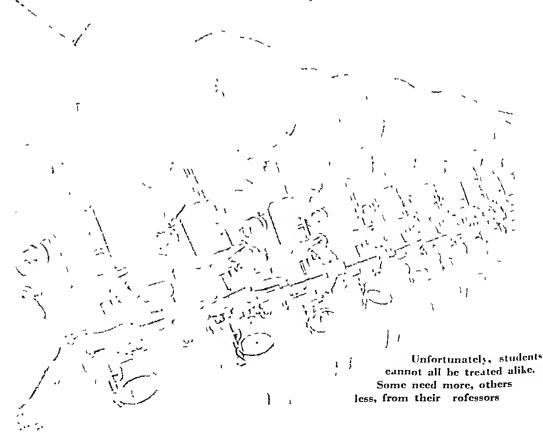
Associate Professor, University of Texas, College of Pharmacy, Austin, Texas From the paper, "Suggested Improvements for Teaching Pharmacy," presented before the Section on Education and Legislation American Pharmacheutical Association, Atlantic City meeting, May 1951

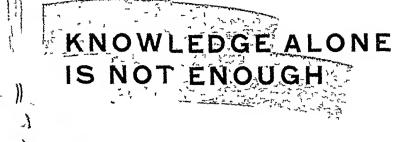
In a recent paper in a science publication it was stated that "Many of our Deans and Administrators are not Educators. They do not possess a true understanding of education, knowledge of psychology, educational psychology, and supervised teaching experiences." This may or may not be true. In either case, it is common knowledge that it takes a great deal more than a vast amount of factual knowledge of pharmacy to make an inspirational teacher of pharmacy courses. It seems apparent that the problem of education for professional responsibility in pharmacy is no different in its essential aspects from

that of preparing students for the profession of teaching in the secondary schools

The pharmacist's education at present is strictly a technical one and tends to be rather narrow. For that reason it restricts to a large extent the supply and the development of leaders. Therefore, in line with the proposed extension of the pharmacy curricula, subjects in the humanities and social sciences should be added and they should be presented with a great deal of vigor and enthusiasm.

Through the teachers, our colleges of pharmacy can help the students to develop character, can help them to acquire necessary qualifications and can instill certain attitudes and ideals in them. Honesty, dependability, resourcefulness, accuracy, self-control, and a pleasing personality should be developed in accordance with the natural abilities of the student. The goal for our colleges of pharmacy should be to improve upon the habit pattern of the student material.







#### The Teacher

In many of our colleges and schools, research has been so heavily emphasized that teaching is secondary rather than at least equal. Applications for positions to a school or college staff emphasize principally the published papers, but rarely mention the applicants' accomplishments as a successful teacher. Furthermore, these same individuals are selected because of their recognized research studies This form of publicity is what most of the pharmacy schools have come to cherish. More and more the pharmacy schools are judged by their research and publications. Many times the pharmacy student does not benefit by these papers. This same student is there to learn and to be taught If the teacher is a good research man, so much the better, but the primary purpose of the teacher is to teach.

Research is certainly important and should not be minimized especially when it is used to aid in teaching the pharmacy student. It is the combination of research and teaching that stimulates him to be a more efficient teacher. The teacher is under an obligation to develop himself to the fullest extent possible. The Christian Ideal of education is that one who thirsts and hungers after knowledge, thus giving him a proper appreciation for other persons.

Teaching is much like being an effective salesman of the subject matter he is teaching. It certainly is not enough to present lectures on a "take it or leave it" basis. It is fundamental that the teacher have a complete knowledge of the subject matter. Even all this acquired knowledge is insufficient. Teaching is an art as well as a science. Every teacher has his own techniques but there are also certain basic principles of teaching or learning which all good teachers use consciously or unconsciously.

The chief difference between teaching and any other duty is that the teacher puts more emphasis upon instruction and its evaluation. The position of the pharmacy teacher should show one how to manage men, how to sustain their interest, stimulate their loyalty, increase their knowledge, develop their skill, and inspire them to "hift themselves up by their own boot straps." The teacher's everyday appearance becomes the students' future appearance. They reflect the teacher's attitudes, ideas, and discipline. They become what they see in the teacher.

#### "Born to Teach"

Nearly everyone has observed the "natural born teacher" They seem to do a successful job even without knowing anything about the principles of education For those who are not "natural born teachers" it would be most helpful to study the fundamental principles of education These basic principles are the result of painstaking research and scientific experimentation These principles can also be modified to suit the individual teacher's needs, as well as be concerned with the teacher's task in transmitting to the students what he knows and can do A few of these principles for teaching and learning may be cited as follows:

(Continued on next page)

#### Good Teacher . . . . . from page 241

There must be a reason why a student learns. This is referred to as "Motivation." Learning occurs when the determining motives and values of the student are involved. He learns best that which he believes is a requisite to his specialty. Artificial motivations can be and are supplied. For example, a student may fear failing an examination or he may only wish to learn to please his instructor. The awards in the form of grades serve as additional motives for learning.

To begin with, then, teaching is the guidance and organization of purposeful learning. Learning is essentially that which the student desires and wants to learn. The teacher can so organize the student's learning better than he can himself. In order for the teacher to organize this student's learning he needs such things as judgment, sympathy, knowledge, skill, wisdom, maturity of mind, and of utmost importance—the ability to stimulate the student. This is where personality plays such a large role. It is very difficult to stimulate only through the use of knowedge. Some teachers have marked abilities to develop showmanship, enthusiasm, and in some cases even a gift along the lines of dramatization. All these things are essential to the teacher but no single quality or any combination of them represents the final duty. They are means to an end.

It is now recognized that there are two general organizations used in teaching. One is the traditional or what has been used in the past and the other is what is called "modern." The traditional method used the assign, or lecture-recite and test formula. The modern is concerned with the unit as a whole. This may concern either the subject matter as a unit or the experience unit. Frequently these units (subject matter and experience) overlap. Actually, the subject matter unit is the system used in which it is the main division and around which experiences are crystallized or related. An experience unit may then be said to be that part of our learning resulting in the actual achievements derived from the subject material unit.

In effecting any classroom organization of what may be termed purposeful learning whether it is traditional or modern, certain principles must be considered. They may be reiterated for the discussion purposes into the methods of learning and those related to the so-called human element. The uniting of the two is what is desired.

The definite principles which are related to the organization of learning are: the subject matter, the point of emphasis, the sequence and evalua-

tion. The subject matter may be considered to be that phase which engages the learner's active interest and his specific purpose. The point of emphasis or focalization certainly has a definite relationship to the subject matter. It highlights the important aspects of learning. A good point of emphasis asks the student a question which he wants to answer, thus he is challenged to do some genuine original thinking. sequence in planning the classroom organization considers the development of a student's mental growth. This is very important in relation to the curriculum. Also the bearing it has on the specific jobs within the curriculum and on the individual courses is equally important.

Experience has shown that the sequence of courses in the pharmacy curriculum has a marked effect. It shows how the specific job of learning is handled. The course is never a self-contained unit to be covered and passed by, but rather it is an integral part of the development line which runs through the course and curriculum and which contributes to the student's mental growth.

#### Seeing the Whole Picture

Instruction will be more effective if the teacher is well acquainted with the entire pharmacy curriculum and not merely the course that has been assigned to him. The course must be taught so that the student sees its relationship to what he has studied, and to the allied courses he is studying, and to those courses he will take in the future.

Good teaching doesn't just happen. It is planned. Much of the difference between an excellent instructor and a poor one lies in planning. Planning a day's work requires attention to all of the activity of an instructional period. The presentation may be a combination of lecture, demonstration, discussion, practice procedures, and such other means or methods that may be used to enable the student to learn the lesson. The presentation is always planned with the aim of obtaining the correct student performance, demonstration and understanding. A wellorganized and logical lecture is never sufficient. The organization and the definite stated ideas are necessary, but the major consideration is always the extent to which they stimulate students to perform and apply the things that are being learned. Therefore, planning the presentation requires consideration of the nature of the student as well as the subject matter. In conclusion, the knowledge of ideas presented in this . paper are important, but the application of those ideas is the essence of improved instruction.



#### LOCAL BRANCHES

MEMBERS of the Philadelphia Branch met March 8 for a dinner-meeting at the Temple University School of Pharmacy. Louis M. Zopf, professor of pharmacy, State University of Iowa, spoke on "Newer Developments in Dermatological Formulation." "Problems Associated with Virus Research" was discussed by Dr. John Spizizen, of Sharp & Dohme, Inc.

Mr. Saul Fischer, of Bobst Pharmacal Company, Inc., presented a talk on "Geriatrics' Challenge to Pharmacy" at the March 12 meeting of the New York Branch.

"Pharmacy in Ohio" was the title of a talk given by William P. Murray of the Ohio State Board of Pharmacy, at the March 7 meeting of the Cincinnati Branch. The February 6 Branch meeting featured a talk on "Medication in Obstetrics" by Dr. R. C. Bryant, Director, Department of Obstetrics, Bethesda Hospital, Maryland.

The Western Nebraska Branch held its regular business meeting on February 28, at Scottsbluff. Dr. V. J. Brandt, veterinarian, presented a discussion on "Rabies—Its Symptoms, Control, and Treatment." Election of officers will take place at the next meeting.

"Psychiatric Methods of Treatment" was the title of a talk given by Dr. J. M. Kenyon of the Toledo Clinic, at the February 28 meeting of the Northwestern Ohio Branch.

The March 15 meeting featured Dr. Albert A. Dietz of the Toledo Hospital Institute for Medical Research as guest speaker. Dr. Dietz spoke on "The Chemistry of the Composition of the Blood."

The Fehruary 27 meeting of the Michigan Branch was devoted to the annual "Student Night" program. Representative students from each of the Michigan Colleges of Pharmacy were eligible to present papers on subjects related to pharmacy in competition for cash awards. The trophy and first prize were awarded to Mr. Phillip Neuman of the Detroit Institute of Technology for a talk on prescription tolerances. Second prize went to Miss Jane Zettle of the University of Michigan for her paper on "The Responsibilities of a Pharmacist."

#### STUDENT BRANCHES

Fegular meetings of the University of Kentucky Branch were held December 13 and Fehruary 15. Mr. Thomas Hoskins, local pharmacist, was guest speaker at the December 13 meeting. Mr. Hoskins stressed the fact that the American Pharmaceutical Association is the only truly "professional" organization to which pharmacists may helong. At the February 15 meeting, Mr. Robert Thornhury, secretary of the Kentucky Heart Association, spoke on "The Role of the Pharmacist in Combating Heart Disease."

St. John's University Branch held a special meeting on February 28. Dr. Rohert P. Fischelis, Secretary of the American Pharmaceutical Association, spoke to the members. Dr. Fischelis stated the position of draft-age students and explained the position of the A. Ph. A. on the FDA ruling in regard to the refilling of prescriptions.

The regular meeting was held March 9. Mr. William de Neergaard, president of the New York State Board of Pharmacy, was guest speaker.

University of Puerto Rico Branch held its first meeting of the current semester on Fehruary 5. Officers elected at this meeting were: Fernando Colón, president; Luis Suárcz Pérez, vice-president; Miss Lucy de Armas, secretary; and Rafael Bernabe, treasurer.

Dr. John Stegeman, Athens, Ga., physician, was guest speaker at the University of Georgia Branch meeting held February 1. Dr. Stegeman's topic was "the Relationship Between the Doctor and the Pharmacist.". A discussion period followed the speech.

New officers of the University of Florida Branch are: William L. Harris, president; James W. Penuel, vice-president; Annette Adams, secretary; Bert C. Bailey, treasurer; and Eleanor M. Murphy, reporter. Meetings of the branch, known as the Mortar and Pestle Club, are held on the second Thursday of each month.

Fred Minardi will serve as treasurer of the Ohio Northern University Branch in the absence of Rohert Elton who has been called to active duty. Mr. Robert Hardy, Eli Lilly representative, spoke on "Past, Present, and Future of Medical Discovery" at the March 15 meeting.

Duquesne University Branch has once again realized its goal of a 100% membership and can successfully claim that every student in the School of Pharmacy is a member of the Student Branch. New officers of the Branch are: Kenneth D. McDonnell, president; Merle Riley, vice-president; and Mary Balta, secretary-treasurer.

(Continued on Page 256)

#### Straight From Headquarters

#### Cortisone Poses a Problem . . . . . . . . . . . . . . . . from page 211

created to determine the therapeutic uses for which it was to be made available.

Hospitals were designated as official recipients and made their application for the drug to the War Production Board which set up a distribution center from which allocations were made. As the volume of production increased the allocation gradually became unnecessary and was discontinued, then the restriction of use to proscribed ailments was relaxed. Supply and demand came into balance and producers, distributors and the sick were well served.

Cortisone has never been subject to any such control. Until its oral use in tablet form was worked out, patients receiving it were generally hospitalized and there was the usual control associated with the administration of drugs in hospitals.

When the manufacturer was able to place the tablet form of the drug on the market it was probably not anticipated that the demand would be so great. There was no attempt to limit the use of the drug through a therapeutic committee. There was no effort to allocate on the basis of established or proven need. Distribution was undertaken through the customary trade channels.

It is an interesting experiment which has put various segments of our system of drug distribution to a rather severe test. Wholesale druggists suddenly find themselves confronted with an allocation problem such as they have never had to cope with before. Hospitals find themselves somewhat out of the preferred position which they have been accustomed to occupy in circumstances involving use and distribution of scarce Some physicians and pharmacists stand accused of charging patients too much for the drug. The public is being made aware of the price charged by the manufacturer to wholesalers and the suggested price to hospitals, retail pharmacists and plivsicians.

It will be interesting to see how and in whose interest it will all work out. At the moment it looks as though future problems like this one might be worked out to the better advantage of all concerned if producer, distributor and consumer, including

those who administer as well as those who receive the drug, all had a say in developing the best distribution procedure.

#### Foundation Progress

N APRIL 1 Commander W. Paul Briggs took over the secretaryship and executive direction of the work of the American Foundation for Pharmaceutical Education. This is the first time that the Foundation has taken on a full-time director. The late Dr. E. L. Newcomb combined the secretaryship of the Foundation with his work as executive vice-president of the National Wholesale Druggists Association. Following the demise of Dr. Newcomb, Dr. Ernest Little, who contributed much to the launching of the Foundation as a joint professional and industry project, became acting secretary and kept the business of the Foundation moving while carrying on his regular duties as head of the chemistry department of the College of Pharmacy of Rutgers University.

The Foundation has an outstanding board of directors which formulates its policics and encourages industry contributions to the funds to be used for the development of pharmaceutical education.

The advent of a full-time director of the administrative affairs of the Foundation is an indication of the desires of its board of directors to make it a permanent institution. It is well for all concerned in giving and receiving Foundation funds to bear in mind that pharmaceutical education cannot advance cheaply. Where it has reached its highest levels it has not been able to maintain itself on student fees.

To guarantee a satisfactory flow of funds from the drug industry to the colleges of pharmacy for promoting high-quality undergraduate and graduate instruction and research is the main function of the foundation. We wish Dr. Briggs every success in keeping the pipelines filled and controlling the valves which will send the flow in the right direction.

#### SOPRONOL IN DERMATOPHYTOSIS

(Athlete's Foot)



#### Effectiveness and Safety Proved in Clinical Practice

Two recent reports on Sopronol therapy establish its value.

1. "Propionate-caprylate mixtures...proved superior to other local medications used in 10 patents observed during this study ... No instances of irritation or sensitivity were observed." 12. "In this series of 39 patients ... the conclusion is reached

that propionate-caprylate treatment is eminently effective... None of the patients complained of irritation and there was no evidence of sensitization. On the contrary, precusting 'id' areas disappeared during treatment."



Nettleship, A · Arch. Dermat. & Syph. 61-669, 1950
 Brewer, W. C : Arch. Dermat. & Syph. 61-681, 1950

SOPRONOL therapy is a therapy of choice with physician after physician.



#### PROPIONATE-CAPRYLATE COMPOUNDS Wyeth

OINTMENT	٢	POWDER		SOLUTION
Sodium propionate Propionic acid Sodium caprylate	12 3% 2 7% 10 0%	Calcium propionate Zinc propionate Zinc caprylale	15 0% 5 0% 5 0%	Propionic acid . 2 7% Sodium caprylate . 10 0%
Zinc caprylate Dioctyt sodium sulfosuccinate	5 0% 0 1%	Inerl ingredients 2 and 5 ez. can	75 0% isters	Dioctyl sodium suttosuccinate 0 1% Inert ingredients 74 9%
ineri ingredients including a Propyl Alcohot	69 9% 10 0%			including a Propyl Alcohol 12 5%
1 or tubor				2 oz. bottles

Wyelf Incorporated, Philadelphia 2, Pa.





by Dr. Richard A. Deno

Rutgers University College of Pharmacy, Director of Educational Relations, American Council on Pharmaceutical Education.

HILE the practice of Pharmacy in France has some differences from our American methods, there are many points of similarity, as was pointed out in Part I of this article in the March issue of This Journal. If, indeed, there are major differences in practice between the two nations, these differences probably lie in the role that government plays in the profession in France. Even there, however, there is not so much difference in end result, but rather, in technique. For example, the Central Service of Pharmacy does for French pharmacists what a great variety of government and non-government agencies do in America, and, I might add, what pharmacy here does for itself.

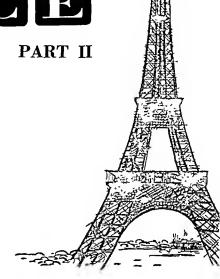
Educational methods, of course, have the well-recognized European flavor of greater attention to study, and less to play; older teaching staffs, and equally old and traditional methods. Subject matter draws heavily on the scientific and laboratory side, with little or no attention to the languages, social studies, and business courses that are found in the curricula of our American schools.

Courses in prescription practice are not offered in France, but some of the material covered in these courses in America is offered in the French courses on pharmaceutical chemistry.

Students are admitted to the study of pharmacy after completing their studies in the lycee, which corresponds to our high school. They must serve one year of apprenticeship before being admitted to college and after graduation from the lycee.

#### THE FACULTIES OF PHARMACY

The French faculties of pharmacy, corresponding to our schools and colleges of pharmacy in America, are always part of the universities, which are under state control. However, the faculties of pharmacy do not utilize other branches of the universities, as do many of the American colleges. Courses in chemistry, phys-



ics, and biology are given by the faculties of pharmacy; never by these divisions in other branches of the universities. The universities, and consequently the faculties of pharmacy, are under the administrative supervision of the National Minister of Education, and all have the same curricula. They are not subject to other control, direct or indirect. Obviously, there is nothing in France corresponding to the American Association of Colleges of Pharmacy or to the American Council on Pharmaceutical Education, for there is no need, since they are state controlled.

There are four types of faculties in France. The autonomous faculties are those having their own deans. They are completely separated from the faculties of medicine. Autonomous faculties exist at the Universities of Montpelier, Nancy, Paris, and Strasbourg. A second type is the mixed faculty, medicine and pharmacy, with one dean administering both branches. Mixed faculties are found in the Universities of Alger, Bordeaux, Lille, Lyon, Marseille, and Toulouse. Lille has two faculties, one administered by the state, the other by the church.

The third type of faculty is that found at the Universities of Clermont-Ferrand and Rennes. All four years of the curriculum are given, but the final examinations are administered by the professors who constitute either an autonomous or a mixed faculty of another university. The diploma is granted by the university whose faculty conducts the final examinations. Thus a student may study pharmacy for four years at

#### PRACTICAL PHARMACY EDITION

Clermont-Ferrand, take his final examinations at Lyon, and receive his dipolma from Lyon. The fourth type of pharmacy school is termed preparatory, and there are several of this type in France. Here, the student studies pharmacy for three years, then must transfer to one of the other three types where the fourth year is completed.

The French undergraduate is largely "on his own," for the laboratory classes are generally supervised by an assistant, while the professor engages in independent research problems. This condition extends also to the lecture periods, where monitoring of classes is infrequent, and where tests are sporadic. As a matter of fact, the student's ability to pass the end of the year examination is perhaps the major test of his success in school. That may account for the fact that although four years constitute the time announced for completing studies in pharmacy, students generally average four and a half years. The comprehensive examinations given at the end of the fourth year are often a difficult obstacle, and students are given the opportunity for further study.

At the conclusion of five years' training in pharmacy, the first of which was spent as apprentice, the successful candidate receives the Diploma in Pharmacy, granted by the state. This is prerequisite to registration, and corresponds to our Bachelor of Science in Pharmacy. In addition, the universities grant diplomas in pharmacy in the name of the university. These represent a standard of achievement less than that represented by the diploma granted by the state.

In addition to graduate training leading to the doctorate, the faculties of pharmacy offer post-graduate course work in various fields, frequently for a year, and leading to a certificate in a special field.

For hospital pharmacists, in addition to the studies outlined for obtaining the diploma, an internship in hospital pharmacy is required. The intern works in an established hospital pharmacy throughout four years. He lives at the hospital, and receives his board and a small salary throughout the internship.

#### CENTRAL SERVICE OF PHARMACY

Governmental regulation of Pharmacy in France is centralized and hence uniform throughout the country. Differences such as occur in America from state to state do not exist in France. Foremost among the regulative agencies are the Central Service of Pharmacy of the Ministry of Public Health, and the National

Order of Pharmacists. The first of these, the Central Service, controls most of the aspects of pharmacy which in America are controlled at the federal level, and some of those which are regulated by our state boards of pharmacy. The Central Service is directed by a chief who is a pharmacist, and is staffed almost exclusively by pharmacists. In addition to the general administrative offices, it has six bureaus, each with a chief; and of these, two are women pharmacists.

#### The Six Bureaus

The first bureau of the Central Service is that of Legislation and Disputed Claims. It is charged with the elaboration of laws and regulations concerning the legal control of pharmacy in France, with disputed claims of various types, and with internal affairs of the Central Service, such as matters of personnel, supplies, and budget.

#### Regulation of Specialties

The second bureau is concerned with aspects of pharmaceutical manufacturing, with the internal control of antibiotics, with analyses and exposures of frauds, and with relationships of pharmacy to social legislation.

The third bureau controls the introduction of new drugs and the regulation of pharmaceutical specialties. It receives applications for new drugs, interprets the analytical and clinical data submitted, and eventually approves or disapproves the public sale of such drugs. It also controls the publicity accompanying pharmaceutical specialties. The chief of this bureau estimates that approximately 20,000 pharmaceutical specialties are registered in France, the majority being of French manufacture. Of these, about 5000 are widely used. Practicing pharmacists loudly condemn the multiplicity of specialties, and especially the duplication or close approximation of a specialty. This practice appears to be fairly common. The older pharmacists object to the change that has occurred in prescription prac-

(Continued on page 248)

In his comparison of French and American Pharmacy, Dr. Deno finds the greatest differences in educational and legislative methods.



(Continued from page 247)

tice because of widespread prescribing of specialties. These complaints all have a familiar sound.

In France, promotion by manufacturers of the sale of specialties does not make use of the detail man nearly so much as in America; printed advertising in journals and by direct mail is used. None of the faculties of pharmacy stresses specialties in formal courses; it is assumed that a graduate qualified in basic chemistry and biology will have the ability and interest to learn about them during the course of his daily practice.

#### The French Codex

The French Codex is prepared under the direction of the chief of the fourth bureau. The first French Codex appeared in 1818. At present, regulations provide for the publication of a Codex each twelve years, with a supplement appearing each three years. The Codex is prepared by a commission of thirty members appointed by the Minister of Public Health, plus seven members ex officio. The French Pharmacopeia consists of all editions of the Codex and of all supplements thereto. Hence, anything that has ever appeared in a Codex remains official, whether or not it appears in the most recent edition.

Bureau number five deals with importations, and has played a prominent role in the rehabilitation of the pharmaceutical industry in France following its decimation during the recent war. Immediately following the war, importations were governed by emergency situations; later by efforts to reconstitute industry. Within the past couple of years, the work of the bureau has been intimately related to Marshall Plan aid. grams are established for the importation of medicaments, surgical supplies, equipment destined to be used by pharmaceutical industry, dental and auditory prosthetics, laboratory supplies and equipment, and apparatus for radiology. Requests for importation must be approved by this bureau, and details of commercial agreements are arranged here.

The sixth bureau is that dealing with exportations, stupefacients, and inspection. Here, visas and licenses are granted for exportation of drugs, and statistics concerning exportations are tabulated. Control of the sale of poisons is vested in this bureau, as is the regulation of traffic in narcotics and certain other habit-forming drugs. International conventions of manufacture and commerce are followed, and the inspectors of the bureau are active in collaborating with police in the repression of illicit drug traffic. Inspection of pharmacies, and inquiries called for by the Chief of the Central Service are carried out by the inspectors of this bureau.

The Central Service of Pharmacy thus performs services which in America are cared for by the Food and Drug Administration, the Treasury Department, the National Institutes of Health, the Committees of Revision of the United States Pharmacopeia and of the National Formulary, and by the various State Boards of Pharmacy.

#### THE NATIONAL ORDER OF PHARMACISTS

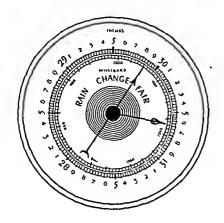
A second governmental agency intimately concerned with pharmacy is the National Order of Pharmacists, established by law during the recent war. Whereas the Central Service of Pharmacy is concerned chiefly with the protection of the health and interests of the public, the Order is concerned with the internal improvement and regulation of the profession. Sharp separation is not always possible between the functions of the Central Service and those of the Order. The two agencies work in close harmony, and the Chief of the Central Service is a member of the Central Council of the Order.

The principal full-time administrative officer of the Order is the Permanent General Secretary. The incumbent is both a graduate pharmacist and a lawyer. The Order is installed in its own building, in Paris. There are four sections of the Order, and every pharmacist in France must have his name inscribed on the roll of at least one of these sections. Such inscription corresponds to registration in America.

#### The Four Sections

Section A consists of those who own or have owned retail pharmacies, and about 14,000 are so registered. Section B consists of manufacturers, and contains around 2000. Section C, the wholesalers, has 200 members. The last section, Section D, numbers among its members hospital pharmacists, pharmacist-biologists, mutualists, pharmacists working for a salary, and all others not included in the first three sections. The total number of pharmacists registered with the Order, approximately 15,160, is not so great as the sum obtained by adding the membership

(Continued on Page 250)



sales,

the response is

# predictable

# Chloromycetini

Predictability of response is one reason so many physicians specify CHLORO-MYCETIN. They know this wide-spectrum antibiotic produces, without undesirable side effects, the rapid bacteriological and clinical response they want.

And you know, from the records of your own prescription department, that the steadily increasing specification for CHLOROMYCETIN is producing the sort of response you want—a steadily growing volume of sales.

CHLOROMYCETIN (chloramphenicol, Parke-Davis)
is supplied in Kapseals® of 50 mg, and in
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PARKE, DAVIS & COMPANY . DETROIT 32, MICHIGAN



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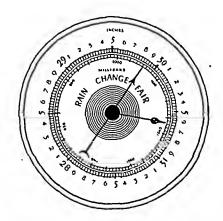
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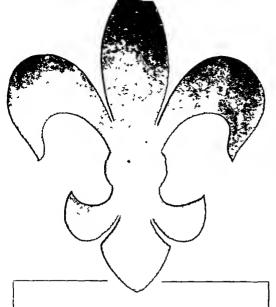
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Each section of the Order has a Council which studies problems peculiar to the section. In addition, there are Regional Councils and a Central Council, headed by the President of the Order, and with members from each of the Regional Councils. The Central Council is the highest echelon of the Order, and is the body which cooperates with the Central Service on matters of legislation. The present President of the Central Council of the Order is a practicing pharmacist who is also a member of the French Chamber of Deputies. The Regional Councils are suggestive of the county associations affiliated with some of our state associations. Many of the activities of the various councils of the Order appear to be similar to those carried on by the county, state, and national pharmaceutical associations in America.

#### Disciplinary Actions

In addition, each Regional Council has farreaching authority in disciplinary matters. It sits as a court within its district in each case of discipline which is solely pharmaceutical, hears the evidence, and pronounces the penalty. This may take the form of a reprimand; an order prohibiting the practice of pharmacy for a specified period of time, with a maximum penalty of five years; or prohibition of practice throughout the lifetime of the offender. Appeals of decisions handed down by a Regional Council may be made to the Central Council, which in turn sits as a court. Finally, appeals of decisions of the Central Council may be made to the Council of State.

Many other services are rendered by the Order such as administration of a pension plan to which all pharmacists contribute. Publication and distribution of the Codex is taken care of by the Order. It is charged with the development of a Code of Ethics, and with devising means for encouraging adherence to it. Officials participate actively in international pharmaceutical congresses, and are deeply interested in arranging programs designed to foster professional and cultural exchange among pharmacists of France and those of other countries. The Order publishes a Bulletin, and arrangements have been completed for the publication of a lenghty résumé of the American Pharmaceutical Survey. A minor but deeply appreciated service is the helpful and courteous treatment accorded visiting pharmacists from foreign lands.

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The syndicates function somewhat as do our unions, in that they attempt to improve working conditions, wages, prices, and other economic aspects of the practice of pharmacy. However, since such matters are more closely regulated by government in France than in America, most of the efforts at collective bargaining are directed toward agencies of the government. The syndicates deal chiefly with the Ministry of Industry and Commerce, and with the Ministry of Finances and Economic Affairs. Collectively, the syndicates constitute the Federal Union of Pharmacists of France.

### Professional Service Pharmacist ..... from page 213

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Increasing preparatory requirements for representatives made it necessary for pharmaceutical manufacturers to institute training classes before placing men, even pharmaceutically trained men, in the field. To employ physicians for pharmaceutical detail and sales work was no longer feasible except in special circumstances. Practicing physicians expected that manufacturers' representatives should be well informed. Today they are even more insistent upon it. Operative pharmacists expected manufacturers' representatives not only to be well informed on products but that they know the retail drug business.

Physicians of manufacturers' medical or clinical research departments were assigned to teach trainees the medical aspects of products. Chemists from the research laboratories were delegated to expound the chemical aspects of products. These courses improved with time. They became more technical. Medical terminology had to be taught. Special instruction in salesmanship and advertising as they relate to detail work and selling of manufacturers' pharmaceutical products to physicians and pharmacists was made an important part of the training program. Virtually a concentrated postgraduate course of study for prospective representatives had to be instituted

With the increasing number of specialties, detail men must find a way to call on more pharmacies—small as well as large. If you have solved this problem, either as a detail man, or as a pharmacist, tell us how you did it so that others—and the professions and the public—can benefit by your experience.

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While the training classes of some pharmaceutical manufacturers have provided the means of overcoming these deficiencies, the necessary training is becoming too broad and too complex to be taught with the required efficiency and effectiveness in these training classes. They should not be expected to have to provide postgraduate training except as it applies to new, broader, and more thorough information on their own and competitive products.

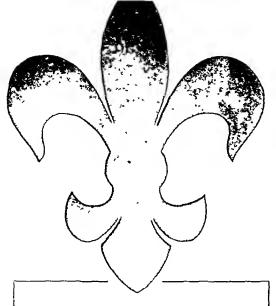
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In increasing degree physicians are relying upon professionally-minded operative pharmacists as well as upon manufacturers' professional service pharmacists for information on pharmaceutical products. More and more are physicians depending upon them for therapeutic as well as pharmacological information. That is as it should be. That is the pharmacists' business. The pharmacists' role as consultants to physicians in practical pharmacology and therapeutics is becoming increasingly important. The inestimable value of service rendered to physicians by well-informed detailmen is largely responsible for this.

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#### ASSOCIATIONS



Four men were honored at the February 16 mid-winter meeting of the Maine Pharmaceutical Association with the presentation of lapel insignia commemorating their long service in the pharmacy field.

They are: A. C. Buxton, Fort Fairfield; Dr. Leon Thompson, Sorrento; Louis H. Galluba, Portland; and Carl Preble, Bangor.

A committee of five members of the Arizona Pharmaccutical Association has recently been chosen to work with the Arizona State civilian defense group with the purpose of setting up suggestions, rules, and committees to carry out proper civil defense work in Arizona.

Sponsored jointly by the Connecticut Pharmaceutical Association and the University of Connecticut College of Pharmacy, the first of six lectures in the Fifth Postgraduate Course was given March 26 at the College of Pharmacy building.

Dr. Robert P. Fischelis, Secretary and General Manager of the A. Ph. A., spoke at both the Iowa and Kansas Pharmaceutical Association Conventions this month. In each instance he discussed current affairs in government as they affect pharmacy.

#### COLLEGES



The opening lecture in the seventh annual lecture series for pharmacists, sponsored by the Rutgers University College of Pharmacy and the Northern New Jersey Branch, was given March

7 at the Rutgers University College of Pharmaey, by Dr. C. Paul Silirie, medical service director of Merek & Co. The subject of his talk was "Modern Anti-rheumatics."

The second talk in the series was given March 14 by Dr. Geoffrey W. Rake, director of the Squibb Institute for Medical Research. Dr. Rake cvaluated anti-anemia factors as to their place in present-day therapy.

Principal officers of national, Illinois, and Chicago pharmaceutical organizations recently were informed of expansion plans of the University of Illinois Colleges of Pharmacy, Dentistry, and Medicine. The meeting, sponsored by the Alumni Associations of the Colleges of Pharmacy, Dentistry, and Medicine, was the first joint meeting of association officers in the health professions. Its purpose was to develop a plan whereby the present unified teaching and research programs of the Chicago Professional Colleges could be expanded to meet the health needs in the state of Illinois.

Dr. John B. Truslow, formerly assistant dean of Columbia College of Physicians and Surgeons, became Dean of the School of Medicine January 1. Dean Truslow succeeds Dr. Harvey B. Haag, who resigned in order to give full time to teaching and research in the department of pharmacology of which he has been head for many years.

The Medical College of Virginia School of Pharmacy has been doing its share in attempting to point out the role of pharmacy in the present civil defense effort. On March 14 and 15, the College presented a Seminar Program emphasizing "The Pharmacist's Role in Civil Defense." Speakers and their subjects at the seminar were: Lt. Colonel F. P. Pitts, Department of Chemistry, "Some Aspects of Radiological Defense; Capt. Herman Nachman, Department of Surgery, "Medical Aspects of Atomic Bombing"; Mr. Abraham Rosensweign, McGuire Veterans Administration Hospital, "Biological Warfare"; Mr. R. R. Rooke, past president of the Virginia Pharmaceutical Association, "Organization of First Aid Services"; Mr. J. Curtis Nottingham, Secretary, Virginia Pharmaceutical Association, "Health Supplies"; Mr. Russell Fiske, chief pharmacist of the Collège Hospitals, "Civil Defense Hospital Services"; and Dr. Nancy King, Department of Pharmacy, "First Aid Measures." Each presentation was followed by a question and answer period.

The first of 400 medical aid stations to be organized for the Civil Defense Program in New York City will be set up at Fordham University. Dr. Leonard J. Piccoli, chairman of the New York State Pharmaceutical Association Civil Defense Training Committee, made this announcement at the third first aid refresher course for pharmaeists, March 27.

This refresher course, joint meeting of the West-chester County Pharmaceutical Association and the Alumni Association of the Fordham College of Pharmacy, is the third of a series of forty which will be given throughout New York State under the auspices of the New York State Pharmaceutical Association Civil Defense Training Committee. (For more on Fordham's CD activity, see the Marchissue of This Jounnal, page 168.)

Hospital pharmacy specialists from Texas and adjoining states will discuss latest developments in their field, April 23-24, at a University of Texas Seminar. This third annual conference is sponsored jointly by the University's College of Pharmacy and Extension Division.

Dean A. F. Schlichting of the St. Louis College of Pharmacy and Allied Sciences has announced that the College will return to an accelerated program such as was adopted during World War II. The accelerated program, to he reinstituted this coming June, will allow students to complete the normal four-year course in two years and eight months of continuous attendance. Students who wish to complete the course in the usual four-year period may do so by attending but two semesters each year.

A regulation lifting the price freeze on college and university tuition, charges, and rates was signed on March 29, 1951. Educators will be kept advised of changes in this regulation through bulletins of the American Council on Education. Information pertinent to pharmacy will appear in This Journal.

#### AT RANDOM



Dr. Howard A. Rusk, director of the Institute of Rehabilitation and Physical Medicine of the New York University-Bellevue Medical Center, was presented with the 1951 Research Award of the

American Pharmaceutical Manufacturers' Association at the annual session of the A. P. M. A. at Boca Raton, Fla., on April 2. Dr. Rusk is the first clinician to receive the award.

Pharmacy students all over the world are invited to attend the second conference of the International Pharmaceutical Students' Federation, to be held in Copenhagen, Denmark, in August. Although the Conference itself will last four days, August 20, 21, 22, and 23, a pre-conference Holiday Camp will be open the preceding week. Notification of attendance must be given the Secretary-General not later than May 1. For further information write to: Bent Foltmann, Secretary-General, International Pharmaceutical Students' Federation, H. C. Orstedsvej 39B, Copenhagen V, Denmark.

May 9 and 10 are the dates of the special Tenth Anniversary Program of the American Institute of the History of Pharmacy to be conducted at the University of Wisconsin. The annual meeting of the A. I. H. P. will be held Wednesday, May 9, 4:30 p. m., at the University. New officers will be elected at this annual meeting.

Nominations for the American Chemical So-Society's Fritzsche Award are now being received by the canvassing committee. This award is given annually for outstanding achievement in the field of essential oils and related products embracing analysis, research, or new applications of such materials. There are no limits on age or nationality. The award consists of a gold medal and one thousand dollars in cash.

Names of the nominees for the 1952 award must be in the hands of the executive secretary of the American Chemical Society, 1155 Sixteenth Street, N. W., Washington 6, D. C., not later than June 1, 1951. Nominations must be made through a member of the American Chemical Society.

Alpha Pi, the first alumni chapter of Rho Chi, national pharmaccutical honor society, was installed March 3, in Tucson, Arizona. Dr. Roy A. Bowers, dean of the College of Pharmacy, University of New Mexico, and national secretary-treasurer of Rho Chi, presented the charter during installation ceremonies held at St. Mary's Hospital.

Officers arc: Dr. W. R. Brewer, head of the department of pharmacognosy, University of Arizona, president; Sister Elizabeth Joseph Scherer, vice-president; and William M. Bethmann, secretary.

#### **MANUFACTURERS**



Plans for the production of two new "Tele-Clinics," motion picture reports on medical meetings of national significance to the medical profession, were recently announced by Wyeth, Inc. In cooperation

with the American Academy of General Practice, Wyeth filmed their annual convention, March 19-22 in San Francisco. In April, Wyeth will photograph the annual meeting of the American College of Physicians.

Irving J. Scskis, president of Schenley Laboratories, Inc., died at Ochsner Clinic, New Orleans, La., March 5, at the age of 52. Mr. Seskis, who was born in New York City on Sept. 4, 1898, joined Schenley Industries, Inc., as a vice-president and director in 1940, a position he retained even after his appointment as head of the pharmaceutical subsidiary. He also was a member of the executive and finance committee.

Mr. Seskis headed Schenley Industries' pioneer activities in the mass production of penicillin. The successful campaign to produce penicillin on a large scale led to organization of Schenley Laboratories.

General Robert W. Johnson, board chairman of Johnson & Johnson, New Brunswick, N. J., has been elected to membership in the American College of Surgeons. General Johnson is the first layman to be so honored by the College.

April, 1951

Wycth, Inc. has recently announced that its Kaomagma® with peetin will carry the new name of Kalpec. The first six months' cartons and labels for 12-oz. trade packages will carry this sentence: "Formerly supplied as Kaomagma® with Pcctin." Wyeth announces that there is no change in the formulation of the product.

Work of the new DuPont laboratory farm near Newark, Del., will deal with the application of new synthetics to control of bacterial and virus diseases, parasites, and insects.

Plans for a modern pharmaceutical plant in Illinois, which will provide needed facilities for production of ACTH and other hormones, enzymes and rare drugs, were recently made public by the Armour Laboratories.

#### Personnel Changes—

Personal Products Corporation-E. W. Jochim, general manager of the Chicago division, was recently elected to the Board of Directors... E. R. Harrington has been placed in charge of the Southwestern, Great Lakes, Midwestern, and Northwestern divisions.. C. J. Copeland has been promoted to national field sales supervisor in charge of retail sales and merchandising training...Frank A. Lorge is now sales manager of the Midwestern division...C. A. Brown will be sales supervisor of the Pacific Coast Division. Winthrop-Stearns, Inc.-Dr. May Sherman has joined the medical staff as associate medical director. Sharp & Dohme, Inc.-Dr. Richard T. Smith was appointed staff physician in the Medical Division. Marvin R. Thompson, Inc.—Gustave Bardfeld, former director of sales and public relations, has been appointed director of clinical research. Wyeth, Inc.—H. F. Anderson was recently promoted distriet manager of the New Orleans division. Evans Research & Development Corporation-Hilde R. Weil and Frank E. Ellison have joined the staff as research assistants. Central Pharmacal Company .- Dr. Carl J. Klemme, recently associated with the St. Louis College of Pbarmaey and Allied Sciences, has recently joined the Company as director of research and product development. Ayerst, McKenna & Harrison Ltd.-Dr. A. Stanley Cook, vice-president, has transferred his headquarters to the New York offices. Dr. Cook will continue to coordinate the scientifie and technical aspects of the business for both U.S. and Canadian divisions. Chilcott Laboratories-Dr. A. Wayne Ruddy has been appointed to the research staff as Director of Organic Chemical Research. C.S.C: Pharmaceuticals-John R. Biederman has been appointed assistant director and will supervise the expansion of the sales force...Thomas R. Callery has been made executive assistant. The Arner Company-J. William Harlow will head the Company's new analytical laboratory in Fort Eric, Ontario. The laboratory recently opened in March. A. H. Robins Co., Inc.—E. F. Heffner, Jr., general sales manager since 1942, was recently elected vice-president in charge of sales. California Fruit Growers Exchange—Donald R. Thompson has been named manager of the products department. Mr. Thompson started his career with the Company's research department in 1927.

Merck & Co., Inc., is planning a new multimillion dollar cortisone production unit near Danville, Pa., which will more than double their capacity for "Cortone" a brand of Cortisone.

More than 800 physicians of Philadelphia and vicinity attended the second symposium conducted March 15 hy Smith, Klinc & French Laboratorics on "The Clinical Problems of Advancing Years." Dr. E. V. Cowdry, professor of anatomy at Washington University School of Medicine, one of the speakers, predicted that the older generation faces longer years of work.

"The immediate concerns of our government, and of all governments, is to combat chronic invalidism and to increase the man and woman power pools by effectively utilizing the labor of older people to compensate for the drain of younger ones into the armed services and war industries," Dr. Cowdry stated.

Geigy Pharmaceuticals, Division of Geigy Company, Inc., moved to larger quarters on April 2. The new offices are located at 220 Church Street, New York 13, N. Y.

#### HOSPITAL PHARMACY



Announcement of the program for the Seventh Institute on Hospital Pharmacy has been made with meetings scheduled for June 11-15 at Hotel Roosevelt in New Orleans. Again offering a pro-

gram aimed toward raising the standard of pharmacy practice in hospitals, subjects to be covered include basic principles of organization and administration, hospital pharmacy management, equipment and procedures and current trends in pharmacology and therapeutics. The Institute will again be conducted by the American Pharmaceutical Association, the American Hospital Association in cooperation with the Southeastern Society of Hospital Pharmacists and the Louisiana Society of Hospital Pharmacists.

The International Hospital Federation is holding the Seventh International Hospital Congress in Brussels, Belgium, July 15-21. "The Care of the Chronie Siek and Aged" will be the central theme of the Congress with sectional meetings covering the following subjects: National and Regional Planning; Planning, Construction, and Maintenance; Organization, Administration and Finance; and Medical Nursing, Social and Intellectual Care.

Mr. Leonard P. Goudy, secretary of the American Hospital Association's Council on Administrative Practice, has been appointed consultant on hospital civilian requirements to the new Civilian Health Requirements Division of the Public Health Service.

Dr. Rohert P. Fischelis, Secretary of the American Pharmaceutical Association, spoke on "Pharmacy's Contribution to Adequate Standards for Hospitals" at the annual Southeastern Hospital Conference in St. Petershurg, Fla., April 4 and 5.

Charles T. Dolezal, M.D., Assistant Director of the American Hospital Association, died March 19 in Chicago. As Secretary of the A. H. A.'s Council on Professional Practice, Dr. Dolezal has worked with the A. Ph. A.'s Division of Hospital Pharmacy in promoting the Institutes on Hospital Pharmacy and in establishing the Minimum Standard for Pharmacies in Hospitals. He was a native of Cleveland where he was commissioner and superintendent of City Hospital prior to going with the A. H. A. He had also scrved as director of Public Health and Welfare of the City of Cleveland, and as assistant superintendent of City Hospital. Mr. Dolezal is survived by his wife, Helen.

#### GOVERNMENT



State directors of Public Health Nursing from the 48 States, Alaska, Hawaii, District of Columbia, Puerto Rico, and the Virgin Islands, held their biennial conference with the Public Health Service

and The Children's Bureau of the Federal Security Agency March 12-16, Washington, D. C.

The purpose of the Conference was to plan for the utilization of public health nurses during this national emergency.

Assistant Surgeon General Ralph C. Williams was retired on February 1 after more than thirty-three years of service in the Public Health Service. He has been head of the Division of Hospital Services since 1943.

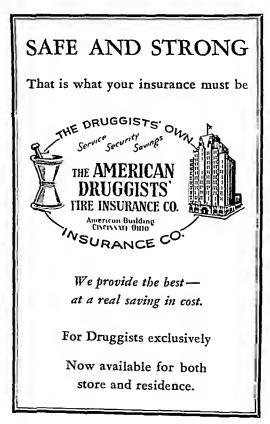
Dr. Williams joined the Public Health Service in 1917 and has served as public relations officer, chief medical officer of the Farm Security Administration, and as officer in charge of Public Health District No. 1. He has recently completed a history, The United States Public Health Service, 1798–1950. (Reviewed in This Journal, March, 1951.)

Typical Days • • • • • • from page 236

civilian requirement problems when drugs and health supplies come into more urgent demand. In the afternoon a visit from a student group of the College of Pharmacy of Temple University. Now off to Columbus, and Wichita.

The past two days spent with the Committee of Six and the Committee on Constitution and By-laws of the A. Ph. A. at Ohio State University, under the chairmanship of Dean Christensen, and with President Gregg, H. C. Muldoon, Newell Stewart and George Webster in attendance. Today a conference with Ohio State Ph. A. Secretary, James H. Merritt.

After this Ohio meeting, on to Kansas City and Wichita to address the Kansas Pharmaceutical Association in the latter city at its annual convention. Here many important questions dealing with the emergency and long term problems of pharmacy were answered, and valuable information was obtained as to the reactions of people at pharmacy's grass roots. Another well-conducted convention with management honors going to efficient Secretary Clara Miller.



#### STUDENT BRANCHES • • • from page 243

Members of the Howard College Branch heard a talk on "Professional and Business Insurance" by Lawrence E. McNeil, Birmingham, at the March I meeting.

The February meeting of the University of Utah Branch was turned over to Mr. Frank Snedger, Mr Thomas Richards, and Mr. Jerry Johnson, representatives of E. R. Squibb & Sons, who presented a discussion program illustrated with sound films

"Opportunities in Pharmacy" was the theme of the District No. 4 Student Branches 1951 Convention held at the University of Michigan, April 15, 16, and 17. Speakers at the convention included: Dr Robert P Fischelis, Secretary of the AMERICAN PHARMACEUTICAL ASSOCIATION; Mr Don Francke, president-elect of the A. PH A; Mr. Robert E Jones, senior assistant pharmacist, U S Marine Hospital, Detroit, Michigan; Mr. Eidson, Ann Arhor, Michigan; Mr John Mac-Cartney, second vice-president elect of the A PH A., and Mr. F. E Willson, both of Parke, Davis & Co., Mr O. K. Grettenberger, Michigan State Board of Pharmacy; and Dr. H. B. Lewis, biochemistry department, University of Michigan.

Mr. Edson Woodward, of S. B. Penick Company, addressed the members of the Massachusetts College of Pharmaey Branch on March 6 Woodward spoke on the Upjohn-Penick expedition to Africa in search of Strophantus species.

The March 21 meeting of the St. Louis College of Pharmaey Branch was addressed by Mr. John A MacCartney, second vice-president elect of the AMERICAN PHARMACEUTICAI ASSOCIATION, and manager of Trade Relations for Parke, Davis & Co, and Mr. Frank E Willson, also of Parke, Davis & Mr MacCartney and Mr. Wilson discussed job opportunities in pharmacy.

A student conference open forum was held at Rutgers University College of Pharmacy, April 8 Dr Robert P. Fiselielis, Secretary of the A Pn A, reviewed the present deferment status of pliarmacy students

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#### MONTHLY DRUG INDEX

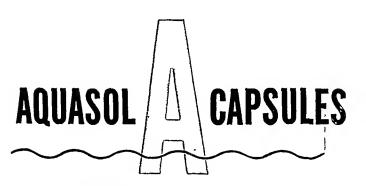
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### Pharmacists from Six States Attend Detroit District Meeting

The Detroit District Meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION, held in conjunction with the Annual Meeting of the Michigan Academy of Pharmacy, on April 20, proved to be the most successful of these District Meetings held

Members of the American Pharmaceutical Association from Michigan, Illinois, Indiana, Ohio, Wisconsın, and Pennsylvania, were ın attendance as were also members of the Student Branches of the Detroit Institute of Technology. Wayne University, and the University of Michi-

President Henry Gregg, who presided over the District Meeting, also addressed the group on the activities of the Association, and Secretary Robert P Fischelis spoke on "Pharmacy and the American Pharmaceutical Association in the Nation's Service." He outlined in some detail the activities of the Association at the Headquarters in Washington and, in answer to questions from the audience, gave a detailed analysis of the Association's effort in endeavoring to arrive at a satisfactory solution of the prescription filling and refilling requirements under the Federal Food, Drug and Cosmetic Act.

Dean Hugh C Muldoon of Duquesne University, Pittsburgh, gave a fine inspirational talk following the luncheon at the Statler Hotel, after which the program of the day was continued in the beautiful Rackham Memorial Building under the auspices of the Michigan Academy of Phar-

Here the assembled pharmacists heard three splendid lectures by experts in the practice of medicine and surgery

Dr Sibley W. Hoobler of the University of Michigan Medical School, spoke on the "Present Status of the Management of Peripheral Vascular Diseases" Dr. Franklin D Johnston, also of the University of Michigan Medical School, spoke on "Critical Discussion of Drugs Used in Treating Heart Conditions," and Dr. Prescott Jordan of the Wayne University Medical School spoke on "Surgery as Related to the Circulatory System."

An evening lecture by Dr. Tom Spies on "Recent Advances in Nutrition and Metabolism." which followed a well-attended dinner, proved to be a most pleasant climax for the end of a perfect day of intellectual, professional and social contact for the pharmacists in the Detroit Area.

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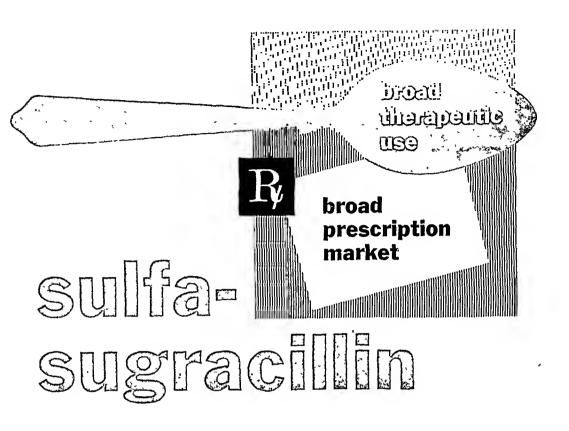
PUBLISHED by the American Pharmecentical Association Publication Office 20th and Northempton Streets, Eastoo Pa Editorial office (and address for oll correspondence) 221S Constitution Ave., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journel of the American Pharmeceutical Association, complete (hoth editions) Uoited States and Pan America \$7, Canado \$7.70, other foreign \$8.50, members of the American Pharmeceutical Association with dues, \$4 Each edition, Scientific Edition or Practical Pharmacy Edition United States and Pan America \$4. Caoada \$4.35, other foreign \$4.50 Single numbers, either edition United States and Pan America \$0.35, Canade \$0.40, other foreign \$0.50 foreign \$0 S0

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Demonstrated in the Laboratory... a combination of sulfonamide and penicillin exhibits synergistic antibacterial action.! Supported by Clinical Evidence... Combined oral sulfonamide-penicillin therapy gave striking therapeutic results in pneumonia, indicating a synergistic effect.?

 Bigger, J W Lancet 2 46, 1950
 Vollmer, H., Pomerance, H.H., and Brandt, I K New York State J. Med 50 2293, 1950

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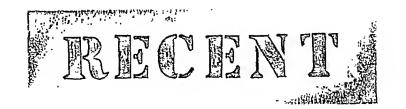
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#### PROGRESS IN MEDICINE

On the following pages, this month and every month, the pharmacist will find brief digests of the latest clinical reports in leading medical journals. They have been selected because of their immediate interest to both physician and pharmacist.

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#### PROGRESS IN MEDICINE



### AUREOMYCIN SUCCESSFUL IN EARLY SYPHILIS

Evidence that aureomycin was effective in treatment of early syphilis was brought out in a preliminary study reported by Drs. J. Rodriquez, F. Plotke, S. Weinstein, and W. W. Harris of Chicago.

Sixty-seven patients each received a total of 70 Gm. of aureomycin, administered orally in 11<sup>1</sup>/<sub>3</sub> days. The patients were observed for a sixto seven-month period, with results of treatment as follows: 59.7 per cent of the patients became sero-negative; 21.1 per cent had a reaction of 3 Kahn units or less; and 15.8 per cent had a reaction of 4 Kahn units or more.

Aureomycin rid the syphilis lesions of surface spirochetes in an average of 39 hours.

(Rodriquez, J., Plotke, F., Weinstein, S., and Harris, W. W., Arch. Dermat. & Syph., 63: 433, Apr., 1951.)

### USE STREPTOMYCIN TO TREAT TUBERCULOSIS IN CHILDREN

Streptomycin has proved valuable in treating tuberculosis in children under 12, according to Drs. William Berenberg, Charles D. Cook, and Claire W. Twinam of Boston. The authors tested the drug on 27 children between the ages of 7 weeks and 17 years, selected because they failed to improve with the usual treatment.

They reported the following results: the disease was arrested in five, eighteen were improved, three were unimproved, and one was worse. The patient who became worse was a 7-week-old infant who developed tuberculous meningitis.

All three of the patients who did not improve were over 12 years of age. Eight patients over 12 received the drug but only two appeared to derive any lasting benefit from it.

(Berenberg, W., Cook, C. D., and Twinam, C. W., J. A. M. A., 145: 1044, Apr. 7, 1951.)

#### AMPIN CLINICALLY TESTED

In what the authors concluded to be the greatest advance in hypodermic techniques since the introduction of the syringe and needle, Drs. R. C. Batterman and C. A. Rovenstine of New York reported on the use of the Ampin, an automatic disposable ampule injector for routine and emergency hypodermic medications.

The Ampin was carefully studied to determine whether the device offered any advantage over the ordinary syringe-needle method of administering hypodermic medications and the practicability and ease of use of the automatic ampule.

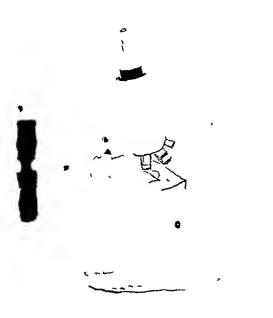
The six-month investigation, by the Committee on Drugs and Formulary of Bellevue Hospital, during which 1,700 Ampins were tested, revealed the following:

- 1. The Ampin provides a safe, reliable, and easy method for parenteral administration.
- 2. The drug is always available in sterile form for instantaneous use.
- The economy in time, service, and actual cost of equipment offsets higher cost of the Ampins.
- The possibility of syringe-transmitted hepatitis is eliminated.
  - 5. Accuracy of dosage is assured.

The Ampin consists of a glass ampule, which contains the medication under pressure of an inert gas. A flexible, rubber connector tube contains the tip of that part of the ampule containing the medication and at its other end, a filter and the needle hub. The needle extends beyond the tube, and the whole is enclosed in a sterile glass cover.

The subcutaneous needle is of 22 gauge stainless steel, 1/2 inch long; the needle for intramuscular use is of 20 gauge and is 11/2 inches long.

(Batterman, R. C., and Rovenstine, E. A., J. Lab. & Clin. Med., 35: 795, May, 1951.)



### DIETHYLSTILBESTROL RECOMMENDED FOR DIABETIC PREGNANT WOMEN

Hope for lowering the mortality rate of infants born of diabetic women was seen in the use of diethylstilbestrol as a routine medication.

Drs. J. M. Moss of Washington, D. C., and H. B. Mulholland of Charlottesville, Va., reviewed the pregnancy records of 500 diabetic women, and found that the over-all fetal mortality rate was 54.7 per cent.

However, further review showed that the fetal survival rate rose to 97 per cent when the mothers had normal hormonal assays. Accordingly, diethylstilbestrol was found to be effective in correcting the hormonal abnormalities, and was found to be better than naturally occurring androgens and estrogens.

The dosage schedule recommended ranged from one 5-mg. tablet daily beginning the seventh week of pregnancy to a daily dose of 125 mg. given in 25-mg. tablets by the thirty-sixth week of pregnancy.

(Moss, J. M., and Mulholland, H. B., Ann. Int. Med., 34: 678, Mar., 1951.)

### INCURABLE DERMATITIS RESPONDS TO PENICILLIN THERAPY

A hitherto incurable skin disease, known as acrodermatitis chronica atrophicans and characterized by inflammation of the skin of the hands and feet, progressing slowly upward with wasting away of the affected parts, has responded to treatment with penicillin,

In each of six cases of the disease, Dr. V. H. Witten of New York administered procaine peni-

cillin G in peanut oil with 2 per cent aluminum monostearate in doses of 600,000 units three times a week until a total of 12,000,000 units had been given.

The symptoms usually disappeared or substantially improved while the patient was still under treatment. The characteristic bluish-red discoloration faded, and infiltration of the tissues decreased, but was noticeable three months after penicillin therapy had been stopped. There was no improvement of established atrophy.

(Witten, V. H., J. Invest. Dermat., 16: 193, Mar., 1951.)

#### CUTANEOUS PREGNANCY TEST

The cutaneous skin test for pregnancy, known as the "Q-Test" and employing colostrum as the reagent responsible for the reaction on the skin, proved 95 per cent reliable in 112 normal pregnant women and 98 per cent reliable in 116 non-pregnant women.

The colostrum, the fluid secreted by the breast a few days before and after birth, was first used in cutaneous tests for pregnancy in 1941, but was not popularized because of difficulty of administration.

Dr. Nino Ferrero of Women's Hospital, Pasadena, Calif., used a recently developed microdispenser, which greatly simplifies the administration of the colostrum. The microdispenser is constructed to hold a minute dose, and embodies a needle pre-positioned to be parallel with the skin-contacting surface of the instrument, thereby minimizing the possibility of the colostrum being given subcutaneously rather than intra-epidermically.

In the test,  $^{1}/_{70}$  cc. of the colostrum was injected into the epidermis. At the end of 15 minutes, pregnant patients exhibited a pearly wheal somewhat increased in size, but little or no redness of the skin. In 60 minutes, all signs of the wheal and redness, if any, had disappeared.

The nonpregnant patient exhibited a marked increase in wheal size after 15 minutes. The wheal was still pearly, and was surrounded by a small irregular patch of reddened skin. In 60 minutes, the redness of the skin had disappeared, but the wheal was inflamed and persisted for several hours.

Each test in Dr. Ferrero's series was verified by clinical or other pregnancy tests.

(Ferrero, N., Am. J. Obst. & Gynec., 61: 672, Mar., 1951.)

(Continued on Page 264)

• • • • • • • • • from page 263

### SYMPTOMATIC TREATMENT OF COMMON COLD

Because most persons cannot begin treatment of the common cold at the first sign of symptoms, Dr. H. F. Johnson, Jr., of Philadelphia treated 427 patients with an antihistaminic combined with other drugs which are specific for the conditions most commonly occurring in coryza.

Dr. Johnson prescribed the following:

Methapyrilene hydrochloride, N.	95	ma
N. R Extract belladonna		Ų
Desoxyephedrine hydrochloride		
(racemic)	1 25	mg.

The belladonna was added to the compounded preparation to suppress excessive nasal secretion. Desoxyephedrine hydrochloride was added to offset the drowsiness caused by methapyrilene hydrochloride.

Two tablets provided methapyrilene hydrochloride, 50 mg., extract belladonna, 15 mg., and racemic desoxyephedrine hydrochloride, 2.5 mg. This dose was taken every four hours during the waking day, although one tablet seemed sufficient unless the symptoms were pronounced.

Ninety-two per cent of the patients experienced benefit; 34 per cent reported that all symptoms disappeared in 24 hours or less; 32 per cent obtained marked relief and the large majority of the remainder had some relief.

(Johnson, H. F., Jr., Am. Practitioner, 2: 250, Mar., 1951.)

### DEPO-HEPARIN, NEW ANTICOAGULANT

The intensity and duration of the effect of Depo-Heparin, a new anticoagulant agent, was tested by Drs. N. H. Moss and D. R. D'Alessandro of Philadelphia, who concluded that the therapeutic results of the new drug justified its clinical use.

Depo-Heparin was used in twenty cases as a postoperative prophylactic measure and in six as a therapeutic measure for either blood clot in the veins or coronary thrombosis.

The route of administration was deeply subcutaneous. Only one injection of 200 mg. per each patient was made. The average duration of the anticoagulant action of Depo-Heparin was 21.8 hours. Peak coagulation time was 56.9 minutes, reached in an average of 7.5 hours. Only minor untoward reactions were noted. .

In summary, the authors concluded that an adequate anticoagulant effect response could be expected by administration of the drug once in 24 hours. For accurate management of dosage, coagulation time determinations should be checked at least twice daily, once 8 hours after injection and the next just before the next administration.

(Moss, N. H., and D'Alessandro, D. R., Am. Practitioner, 2: 309, Apr., 1951.)

### COMPOUND 75 G. T. FOR EYE REFRACTION

Clinical use of a new drug which promises to be more efficient than drugs now in use for dilating the pupil of eye and paralyzing the ciliary muscle which controls the eyelids, thus allowing better examination of the eye, was reported by Drs. Bruno S. Priestley and M. M. Medine.

The drug is now known as compound 75 G. T. Although the chemical formula was not given, it is a member of a new series of antispasmodic agents belonging to the class of basic esters of substituted phenyl acetic acids.

Compound 75 G. T. was found to be nonirritating and nontoxic in a concentration of 0.5 per cent. It was rapid in action, and more effective than homatropine in immediate paralysis of the ciliary muscle, and less persistent in recovery of the muscle.

The authors predicted that the new drug could displace homatrophine, and possibly atrophine, in the practice of refraction.

(Priestley, B. S., and Medine, M. M., Am. J. Ophthalomol., 34: 572, Apr., 1951.)

### ALUMINUM PENICILLIN AIDS PNEUMOCOCCAL PNEUMONIA

Satisfactory results were obtained in the treatment of thirty-seven cases of pneumococcal lobar pneumonia in which oral aluminum penicillin was given, according to Drs. J. C. Harvey and G. S. Mirick of Baltimore, Md.

Thirteen other patients in the series, whose infections were more severe, were treated by penicillin given intramuscularly.

The patients treated with aluminum penicillin were given 300,000 units at diagnosis and an additional 300,000 units every 12 hours until the patient had been without fever for 72 hours. Twenty patients had no fever two days after

(Continued on Page 266)

### of the antihistaminic set

The first antihistamine to be made clinically available in this country, BENADRYL, provides a complete variety of forms for every prescription purpose-truly a leader in its field. Clinical performance in the treatment of hay fever and other allergies has assured its position with your physicians. Why not take advantage of BENADRYL's reputation and turnover record by stocking all the product forms your physicians will specify?

OENADRYL HYDROCHLORIDE KAPSEALS®

GENADRYL HYDROCHLORIGE CAPSULES Each capsule contains 25 mg. BENAGRY, hy-drochloride. Supplied in bottles of 100 and

OENAORYL HYDROCHLORIDE ELIXIR Each teaspoonful (4 cc.) contains 10 mg. of Brankle hisdrochloride. Supplied in 18-ounce and 1-gallon bottles.

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Each Kapseal contains 50 mg, BENAGREL bydrochloride and 10 mg, of ephedrine sulfate,
Supplied in bottles of 100 and 1000 Kapseals,



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(Harvey, J. C., and Mirick, G. S., Bull. Johns Hopkins Hosp., 88: 270, Mar., 1951.)

### PENICILLIN OINTMENT FOR EYES OF NEWBORN

Silver nitrate solution, the preparation now being used in the eyes of newborn babies to prevent infection, may be replaced by penicillin ointment.

Drs. 11. 11. Davidson and N. J. Bastman and Sanitarian Justina 11. Hill of Baltimore recommend that penicillin olutment be used in the eyes of newborn infants in preference to silver nitrate because, in their opinion, it is the most efficacious, the safest, and least irritative agent for this purpose.

The opinion was expressed that, where necessary, regulations governing the use of silver nitrate should be changed to permit the use of penicillin ointment in hospital practice when the physician prefers it to silver nitrate.

Three different methods of eye care—penicillin ointment, penicillin intramuscular injections, and silver nitrate—were used in rotation for a week at a time. During a two-year period, 4,163 infants were treated with one of the three methods.

All three methods proved equally effective in preventing gonococcal infection, but only 10.6 per cent of the babies treated with penicillin ointment showed any signs of inflammation such as redness, swelling, or discharge. The incidence of irritation in silver nitrate treated babies was 48.7 per cent. Irritation from the intramuscular treatment of penicillin was recorded as 13.8 per cent.

(Davidson, H. H., Hill, J. H., and Eastman, N. J., J. A. M. A., 145: 1052, Apr. 7, 1951.)

### COLCHICINE USED IN TREATMENT OF SKIN CANCER

Colchicine, an alkaloid which has been undergoing study in experimental treatment of cancer, was used clinically in seven cases of skin cancer with disappearance of lesions in five cases, Dr. Lawrence M. Nelson of Santa Barbara, Calif., reported.

The colchicine was injected directly into the lesions in a saline solution containing 1 mg. of colchicine per cubic centimeter. Approximately

0.1 cc. of the colchicine solution was injected into the center of the lesion, followed by a similar injection in 2 or 3 days.

Of seven cancers in which injections were made, five clinically disappeared. One other disappeared except for pigmentation, but recurred within 3 months. One other was not influenced either clinically or microscopically by the drug.

(Nelson, L. M., Arch. Dermat. & Syph., 63: 440, Apr., 1951.)

# CHLORAMPHENICOL USED AS PROPHYLAXIS AGAINST WHOOPING COUGH

In a study to determine the prophylactic effects of chloramphenicol in the pre-paroxysmal stage of whooping cough, Dr. Andrew Bogdan of Westminster, England, found that the antibiotic successfully modified the illness in ten of thirteen children who had been in contact with known cases.

In seven of the thirteen cases, II. pertussis was isolated by swabbing. In four of these, the disease was arrested at the entarrhal stage and resembled a mild cold. In another patient the cough was arrested.

Of the six cases in which the swabbings were negative, three were arrested in the catarrhal stage and one before the cough became spasmodie.

The chloramphenical was given five times a day for five days. The daily dosage was equivalent to 22 mg, per kilogram of body weight.

(Bogdan, A., Lancet, 260: 764, Apr. 7, 1951.)

### PRESCRIPTION WRITING FOR CONTACT DERMATITIS

Contact dermatitis is an inflammatory reaction of the skin due to the external action of either physical, animal, vegetable, mineral, or chemical substances. This inflammatory reaction may consist of redness, swelling, blisters, oozing, or rusting, or any combination of these. It is usually followed by shedding, tichenification, and pigmentation.

Dr. J. G. Downing, of Boston, has had success with the preparations described below.

Powders are valuable in treatment of contact dermatitis because they are cooling and drying, especially on red, inflamed, unbroken skin. The mineral substances are best—tale, zinc oxide, calcium carbonate, magnesium carbonate, and kaolin. A reddened healing area may be protected by borated tale. The incorporation of a small amount of oil is helpful.

(Continued on Page 268)



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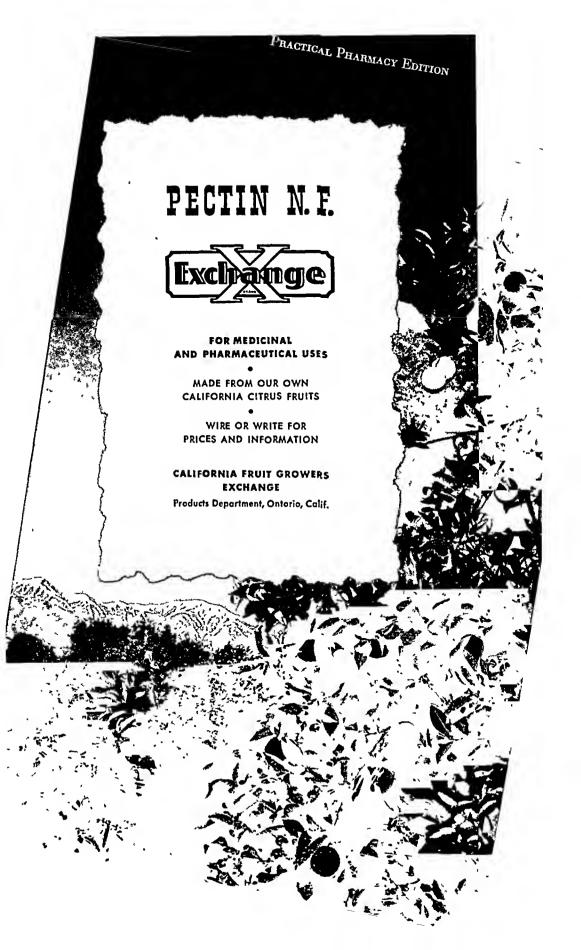
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(Continued on Page 268)



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Magnesium stearatc	12
Liquid petrolatum	12
Talc	q s 120

Lotions should be used on congested and oozing surfaces. Two useful and popular emulsions are calamine lotion U. S. P. XIII and neocalamine lotion N. F. VIII, containing bentonite. The addition of phenol, 1 to 2 per cent, and menthol, 0.25 to 0.5 per cent, relieves the pruritus. The following is an excellent formula for relief of severely itchy, vesicular areas:

Zinc sulfate	2_
Phenol	2
Zinc oxide	15
Lime water	q s. 250

This can be colored to match the patient's skin by adding neocalamine powder in proper proportions.

Solutions of tannic acid and ferric chloride and concentrated potassium permanganate are advocated and useful in the treatment of the dermatitides resulting from contact with poisonous plants, but the patient is apt to forget the former suffering and discomfort and condemn the physician who has charged him with a stained or pigmented skin. They never should be used on areas of the skin exposed to sunlight, because it accentuates and prolongs the disfigurement.

When the acute inflammation has subsided, pastes or emulsions are indicated. An excellent watery paste is:

Zine oxide			30
Talc	•	•	30
Glycerin			30
Water .			30

The official paste of zinc oxide is popular, but the following are preferred by many

,			
Zinc oxide			2
Hydrolyzed cornstarch			13
Petrolatum.	•		15
	or:		
Solution of alum	inum acetate		10
Lanolin			20
Zinc oxide paste	•		30

Pastes should be used after an antipruritic lotion. However, an emulsion or limiment might replace both. Calamine limiment N. F. VIII or the cuticolored neocalamine limiment N. F. VIII satisfies all requirements. When an antipruritic is needed, phenol or menthol may be added in reduced amounts to avoid irritation due to the

prolonged action in the oil. If there is any superficial infection, the following formula is indicated:

Menthol	0.5
Phenol	1.0
Ichthammol	. 75
Zinc oxide	30 0
Olive oil	
Lime water	$\dots \overline{aa} \ ad. 250$

The use of ointments is the last step in the treatment of acute eruptions of contact dermatitis. Having no evaporation properties, they cause congestion and irritation if applied too soon. When the eruption becomes dry, crusted, desquamated, fissured, or lichenified, a bland ointment such as one of the following may be indicated. white petrolatum, aquaphor, rose water ointment, boric acid ointment, zinc oxide ointment, or the nongreaseless hydrophilic ointment paste, U. S. P. Pastes and ointments should never be applied directly to the skin, but rather on a piece of soft linen. Too vigorous removal of these applications will delay healing and they should be sponged off gently with sterile oil. Three per cent vioform ointment is of value if superficial infection is present. A very useful, soothing ointment is calamine ointment N. F.:

Prepared calamine	•	17
Yellow wax		4
Wool fat		4
Petrolatum		75

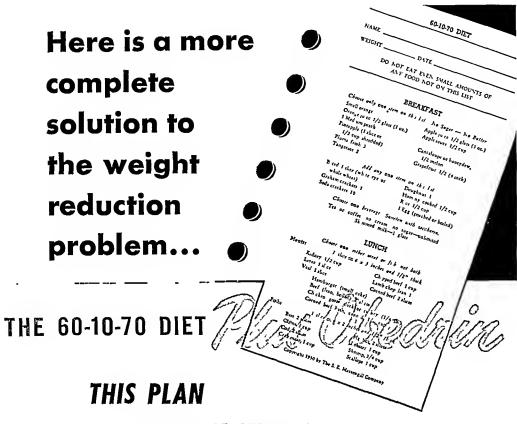
The addition of a small amount of neocalamine will make this ointment skin color.

Tars should never be used in the treatment of the early stages of a contact dermatitis, but they are of great value in persistent pruritic patches of weeks' duration. White's original formula is of great benefit

Crude coal tar	2
Zınc oxide	2
Cornstarch	15
Petrolatum	15

The newly introduced group of so-called antihistaminic ointments are of value in certain selected cases. Five per cent thephorin ointment has been beneficial in a carefully selected group of persistent dermatitides. Two per cent pyribenzamine cream and 2 per cent histadyl cream are also of value in lichenified patches. However, one must be careful of the occasional sensitization reaction produced by these drugs. It is apparent that even the so-called antihistamines produce allergies in susceptible individuals.

(Downing, J. G., Post. Med. 9: 347, Apr., 1951.)



#### **CURBS THE APPETITE**

Through the use of the unique 60-10-70 diet and Obedrin tablets, considerable weight can be lost without troublesome hunger or impairment of nitrogen balance. Patient cooperation is assured because morale is kept high and excessive fatigue due to a nutritionally unsound diet is avoided.

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The 60-10-70 diet allows free choice of many foods and supplies 70 Gm. of protein, 60 Gm. of carbohydrate, and 10 Gm. of fat, approximately 610 calories. The diet sheets are complete and self-explanatory, making it easy for the patient to do his share.

Obedrin permits adequate dosage of Semoxydrine Hydrochloride (methamphetamine) to suppress appetite. The corrective dose of pentobarbital cancels excessive central nervous stimulation, while vitamins help maintain the patient's sense of well-being.

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### PRESERVATIVES FOR COSMETIC CREAMS AND LOTIONS

I am interested in obtaining a list of several commonly used preservatives for cosmetic creams and lotions. I'd like to know, in addition to the sources of supply, the approximate percentages used in these preparations.—J. L. S., Alabama.

Each cosmetic cream or lotion may present a specific problem and a preservative which is satisfactory in one instance may be quite unsatisfactory in another. Many preservatives have been recommended for the inhibition of the growth of microorganisms in cosmetic preparations. Among these are such preservatives as borax 0.9 per cent; acetanilide, 0.3 per cent; cresol, 0.1 per cent; phenol, 0.13 per cent; salicylanilide, 0.025 per cent; thymol, 0.04 per cent; phenylmercuric nitrate, 0.01 to 0.05 per cent.

The most commonly used and the most effective preservatives appear to be the esters of parahydroxybenzoic acid which are used in a ratio of 1 to 750 or less, depending upon the ester used. The three most commonly employed esters are the ethyl-, propyl-, and butyl-parahydroxybenzoates. You should be able to obtain these products from your local wholesaler. If they are not available from that source, small amounts may be purchased from the R. F. Revson Company, 144 West 18th St., New York 11, N. Y.

#### METHADONE HYDROCHLORIDE

Could you give me the makeup of Dolophine, its action, and dosage?—Dr. I. S., New Rochelle, N. Y.

"Dolophine" is a product of Eli Lilly and Company, Indianapolis, Ind. This product is also known by the N. N. R. title "Methadone Hydrochloride," and by the Winthrop-Stearns trademark name "Adanon Hydrochloride." Chemically it is d,l-6-Dimethylamino-4,4-diphenyl-3-

heptanone hydrochloride. According to New and Nonofficial Remedies 1950, the actions and usage and dosage are as follows:

"Actions and Uses—The term methadone refers to a mixture of the d and l isomers. The actions of methadone hydrochloride are similar to those of morphine. The l isomer is five times as potent as is the d isomer. Except when taken orally, it causes less nausea and emesis than morphine and, in minimal analgesic doses causes less respiratory depression. Because it is less sedative, methadone hydrochloride is inferior to morphine as a pre-anesthetic agent. The duration of its action is longer than that of morphine, and it is better absorbed when administered orally.

"Methadone hydrochloride induces addiction and, after long administration, may cause withdrawal symptoms, but they appear more slowly and are less severe than those caused by similar administration of morphine. Methadone hydrochloride may be substituted for morphine to prevent or alleviate morphine withdrawal symptoms.

"Methadone hydrochloride may be used as an analgesic for moderate and severe pain. Its most important use is in the oral treatment of pain in cancer patients. It is not recommended for conditions in which scalative effects are important. It is also antitussive, but for this purpose codeine is preferred because it has less addiction liability.

"Dosage—Adults, 2.5 to 15 mg. depending on the intensity and etiology of the pain. The usual dose is 7.5 mg. orally every three to four hours.

"When necessary, the drug may be administered parenterally either intramuscularly or subcutaneously, but because of its slight local irritant effects it should not be administered by either route in doses larger than 2.5 to 10 mg. It should not be given intravenously.

# CONVERTING RAW SUGAR INTO ALCOHOL

Please send me information on the type of yeast that should be used to convert "raw sugar" into alcohol.—
L. B. M., Guatamala

The United States Dispensatory, 24th Edition, outlines the manufacture of alcohol as follows:

"Approximately 90 per cent of the alcohol produced in the United States utilizes blackstrap molasses as the starting material. Manufacture of alcohol from molasses is much simpler than from grain in that the milling, cooking and malting (by which saccharification of starch is accomplished) are omitted; molasses does not require an initial hydrolysis as it contains fermentable sugars. The process consists of the following steps: (1) weighing of the molasses, (2) mixing with water, (3) sterilizing, to prevent contamination with organisms which may influence the course of the fermentation, (4) cooling or diluting with cold water, (5) charging the fermenters with the dilute molasses, (6) addition of pure yeast culture (generally Saccharomyces cerevisige), sulfuric acid (to invert the sucrose in the molasses) and yeast food (ammonium sulfate), (7) fermentation for 36 to 48 hours, (8) distillation of the 'beer,' which contains 6.5 to 8.5 per cent by volume of alcohol, to yield a distillate containing 95 per cent by volume of alcohol."

# COMPOUNDING PROCEDURE

What is the proper procedure for compounding the following prescription?

Acetylsalicylic Acid	. 25%
Sodium benzoate	
Eugenol	. 2
Balsam of Peru	.10
Paraffin	.16
Anhydrous lanolin	.46
Mix enough to make 1/2 pound	

-P. D. C., Waterbury, Conn.

This prescription is similar to Compound Acetylsalicylic Acid Paste N. F. VIII. It can be compounded as follows:

Melt the paraffin on a water bath, add the anhydrous lanolin, heat the mixture gently until it liquefies, and then stir it until it congeals. Incorporate the eugenol and the balsam of Peru all at once, in about one-third of the congealed base, and incorporate the acetylsalicylic acid and sodium benzoate in the remainder. Thoroughly mix the two portions together.

# GLYCERIN AVAILABILITY

In our hospital, we have been using alkaline antiseptic solution for mouthwash, as our patients are mostly children. However, this contains glycerin which is hard to obtain. Could you suggest a substitute, and also, what is being done about elixir terpin hydrate in this regard?—F. M. M., Philadelphia, Pa.

During an acute shortage of glycerin in 1943 provision was made for the reduction of the glycerin in alkaline aromatic solution from 100 cc. per liter to 50 cc. per liter. The resulting product appeared to be quite satisfactory and entirely acceptable to those who used it. Perhaps, for use in the hospital, you might care to try reducing the glycerin in accordance with the provision of 1943 and thus save half of the glycerin required for this preparation.

As far as other preparations are concerned that might serve satisfactorily as a replacement, we refer you to a large number of mouthwashes listed in the Third Edition of the Pharmaceutical Recipe Book, copy of which you no doubt have or can obtain from one of the Pharmacy College Libraries in Philadelphia.

All efforts to develop a satisfactory replacement for glycerin in terpin hydrate elixir have thus far been quite unsatisfactory. We have attempted to replace glycerin with propylene glycol and with sorbitol but neither yields a satisfactory product.

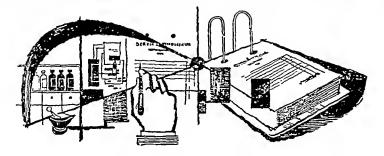
# CHLOROMYCETIN ASSAY

Could you provide me with methods for the assay of Chloromycetin in various combinations, such as propylene glycol solution and a solution of this antibiotic in Benylin expectorant?—J. M., Long Beach, Calif.

We have had no experience with the assays of antibiotics. Because of our inexperience with chloramphenicol assay methods we called the Antibiotic Division of the Food and Drug Administration. From the information obtained from that source, there are apparently two standard methods of assay; one a biological assay and the other a spectrophotometric assay. The spectrophotometric assay is described in the fourteenth revision of the U. S. P., page 130.

Copies of the procedures for both the biological assay and the spectrophotometric method may be obtained upon request to the Antibiotic Division, Food and Drug Administration, Federal Security Agency, Washington 25, D. C.

# BALANCED BUYING



Pharmacists must be alert to the times, be ever ready to conform to current medical opinion.

The free and open competition that now prevails in the drug industry makes this task extremely difficult. Countless brands of the same or similar items, many with little promise of continued demand, are under constant promotion.

The best solution is to buy a new item in the smallest package available, one only, through the wholesale distributor. Buy in larger quantities only after demand is assured. It is well, also, to concentrate as nearly as possible on the products of manufacturers you know. The Lilly Label is a respected symbol of high ideals and reliable service.



Eli Lilly and Company, Indianapolis 6, Indiana, U.S.A.

Lilly

# Journal of the

# **AMERICAN PHARMACEUTICAL ASSOCIATION**



VOL. XII, NO. 5 ONSECUTIVE NO. 9

# Practical Pharmacy Edition

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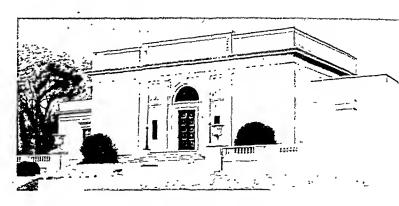
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# STRAIGHT FROM HEADQUARTERS



by Robert P. Fischelis, Secretary

AMERICAN PHARMACEUTICAL ASSOCIATION

# Hearings on the Durham Bill

ROM May 1 to 5, inclusive, there appeared before the Committee on Interstate and Foreign Commerce of the House of Representatives in rapid succession representatives of the Federal Security Agency, the Food and Drug Administration, the National Association of Retail Druggists, the American Pharmaceutical Manufacturers Association, the AMERICAN PHARMA-CEUTICAL ASSOCIATION, the American Drug Manufacturers Association, the Proprietary Association of America, the U.S. Circuit Court of Appeals, representatives of individual pharmaceutical manufacturers and others. The subject of the hearings was the third Durham bill, known as H.R. 3298, which seeks to amend the Federal Food, Drug and Cosmetic Act to permit prescriptions to be received by telephone and to set up a procedure for distinguishing drugs which may be sold without prescription from drugs which may be dispensed by pharmacists only on the prescription of a practitioner licensed to prescribe drugs and medicines.

As is now well known, this proposed legislation which started with the first Durham bill, presented to the 80th Congress and continued with the second unsatisfactory Durham bill presented to the 81st Congress, stems from the effort to overcome the confusing effect of the interpretation placed upon the present Food, Drug and Cosmetic Act with reference to the filling and refilling of prescriptions.

What the pharmacists of the United States have been asking for is an official interpretation of the present law or, if necessary, amendment of the present law, to permit continuance of the established custom of refilling authorized prescriptions without having such prescriptions presented for renewal in writing and to permit physicians to telephone prescriptions in the first instance, as has been customary over the years without Federal interference.

Testimony at the hearings revealed that in the attempt to provide for the continuance of the present physician-pharmacistpatient relationship through legislation, the endorsement of the Food and Drug Administration carried with it a bid for additional power over the practice of medicine and pharmacy. The power requested is to enable the Commissioner of Food and Drugs to determine, after public hearing, whether a drug can be labeled with adequate directions for self-medication or whether it is sufficiently potent or dangerous in character to require its use to be confined to medical supervision by way of prescription. authority to determine this classification of drugs now lies with the manufacturer who produces the drug and who may label it for prescription dispensing only, if in his judgment it is a drug too dangerous or potent for use without medical supervision.

The testimony brought out that there is no special need for such authority on the part of the Administration since it now has the power to proceed against a manufac-

turer who markets a drug for self-medication, if it is in fact dangerous to health or can be used properly only under medical supervision.

A further bid for power on the part of the Administration is the provision of the bill which deals with the determination of the effectiveness of a drug.

As a sop to the drug industry, there is included in the bill a provision for a court review which was strenuously opposed at the hearing by a judge of the Circuit Court of Appeals because of the unusual form provided for such an appeal. The case for the American Pharmaceutical Associ-ATION, which has been endeavoring to obtain an administrative ruling under the present act to cover this matter, was presented by Secretary Robert P. Fischelis by authority of the Council of the A. PH. A. which had given consideration to this problem at its meeting in Washington on April 26 and 27.

As is noted in the Report of the Council on another page of this issue, Chairman Schaefer of the Committee on Legislation, reported in detail on the provisions of the third Durham bill, after which the Council decided to emphasize the following unsatisfactory provisions in a prepared statement

to the Committee:

H.R. 3298 (the third Durham bill) does not permit refilling of prescriptions calling for drugs which bear the prescription legend unless authorized personally by the physician.

2. H.R. 3298 substitutes the judgment of the F. D. A. in all instances for the judgment of producers of drugs and practitioners of medicine and pharmacy, thus regimenting the practice of pharmacy and medicine beyond any public health requirement.

3. No one can tell, until after the passage of H.R. 3298 and after protracted hearings to be conducted by the Commissioner of Food and Drugs. which of some 30,000 drugs will be designated as prescription products and which may be sold over the The bill does not list any drugs for either classification, so that those who are asked to accept this legislation in its present form are without any information as to the

status of the drugs which they will be called upon to dispense.

Other testimony presented on behalf of the Association pointed out the difficulties which have plagued law-abiding practicing pharmacists since the Commissioner of Food and Drugs issued his interpretation of the Law, to the effect that no prescription Objection was raised to can be refilled. requiring written confirmation of telephoned prescriptions within 72 hours. Although such a requirement does not appear in H.R. 3298, it did appear in the second Durham bill and both the Federal Security Administrator and representatives of the Food and Drug Administration urged its insertion in H.R. 3298. The testimony of the A. PH. A. cited examples of what is meant by depriving practicing pharmacists and physicians of the right to exercise their professional judgment. This became necessary because of earlier testimony on the part of proponents of H.R. 3298 picturing pharmacists as a helpless lot of dispensers who have to be regimented by a government agency in order to carry out the professional duties which they have been licensed by the several states to carry out on their own initiative.

A careful analysis of the testimony at the hearing and consideration of the attitude and questions of the members of the Committee indicates quite clearly that before any consideration is given to the third Durham bill (H.R. 3298), it will be amended considerably. While this bill is an improvement over the second Durham bill, it requires further changing in order to meet the needs of practicing pharmacists.

The American Pharmaceutical Associ-ATION has endeavored by democratic procedures to obtain an official interpretation of the existing law in order to be able to advise the pharmacists of the United States as to their rights and privileges with respect to the filling and refilling of prescriptions. Such an official ruling is in the making and will serve to clarify the situation.

If legislation is necessary to clarify the issue, it should be of such a nature as to leave no room for doubt regarding the exercise of professional judgment on the part of the medical and pharmaceutical professions.

(Continued on Page 311)

# Chloroquinat

# by Dr. Justus B. Rice\*

In the war-forced search for an antimalarial replacement for quinine, Chloroquine won out over all others. Now, alone and in combination with Milibis, it shows great hope in the homefront—as well as the battlefront—fight against amebiasis.

NQUESTIONABLY, the successful battle against malaria in the South Pacific during World War II contributed immeasurably to total victory in the war. With the advent of the war in Korea, a similar battle existed, but fortunately pharmaceutical research had made even greater strides in its search, and development of, a new anti-malarial that far surpassed the techniques of World War II. This new discovery is chloroquine. In addition to its vital use against malaria, it is now being indicated in the United States for extra-intestinal amebiasis.

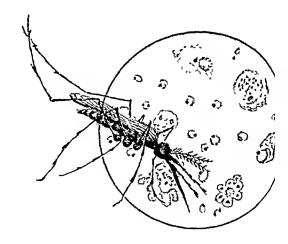
First synthesized at the Sterling-Winthrop Research Institute in 1944, it is commercially known as Aralen. Chemically, it is 7-chloro-4-(4-diethylamino-1-ethylbutylamino) quinoline. Production capacity has tripled since Korea, and by July, the present annual production rate of 100,000,000 tablets is expected to be increased nearly twofold. For oral administration, it is supplied in the form of a diphosphate, a white crystalline powder readily soluble in water at an acid pH level. It comes in tablets of 0.25 and 0.5 Gm.

# End to the "Little Yellow Pills"

Few indeed are the pharmacists in practice today that do not recall how the profession rallied behind the war effort in the Quinine Pool of the early years of World War II. When the Japanese first overran the Dutch East Indies, source of 95 per cent of the world's quinine, the Allied Forces lost their great natural anti-malarial For three hundred years quinine had been traditionally accepted for this purpose and with its loss, the American armies in the South Pacific

faced, in the threat of malaria, a far greater enemy than the guns and tanks of Japan. It was then that the pharmacists scoured their shelves and basements for all products containing quinine and contributed them to the war effort. At the same time, research chemists the nation over searched unceasingly for some other drug that would replace the anti-malarial qualities of the non-available quinine. Fortunately, atabrine was synthesized from domestically available materials and became "the little yellow pill" that sayed many fives despite its bitter taste.

Although in the entire military forces of the South Pacific it would be almost impossible to find a man who enjoyed his daily tablet of



atabrine, this anti-malarial was produced at a peak rate of three and one-half billion in 1944.

Atabrine, despite its successes, had many faults. It is there that chloroquine gains its greatest acceptance. Among the advantages of chloroquine over atabrine are: (1) only one tablet a week (0.5 Gm.) is necessary; (2) it doesn't taste bitter; and (3) it doesn't cause discoloration of the skin. These facts have been evidenced in its use in Korea, since men began to pour into that battle area.

<sup>\*</sup> Director of Medical Research Winthrop-Stearns, Inc., New York, New York.

lus



Each tablet receives careful inspection before shipment

# Disease Ridden Korea

Korea is said to be one of the worst regions in the world, as far as disease is concerned. In addition to malaria, cholera, typhus, typhoid fever, and amebiasis are prevalent there. However, the Army's technique in suppressing them, illustrated by the anti-malarial procedure, has proved to be effective.

Chloroquine tablets flow to the front along with the food supplies. If a G.I. is up front, his line officer supervises the taking of the weekly tablet. Otherwise, a "medic" handles the "check list," to see that nobody "breaks discipline." The incidence of malaria among our troops is so low as to suggest that most of the cases occur when a platoon or other combat



Pharmacists everywhere remember the World War II Quinine Pool

group has "broken discipline." This is far less common than was the case with the bitter-tasting little yellow pill, Army officers point out.

In any case, success in suppressing the malarial parasite with chloroquine, first tried and found effective under combat conditions by the Army last summer in Korea, offers a striking contrast to the dreadful incidence of the disease throughout the world. Malaria is the world's most prevalent infectious disease, with estimates of its incidence ranging up to 800,000,000 cases a year, and approximately 3,000,000 deaths.

# Chloroquine's History

Chloroquine is not a new development, in the sense that its history dates to events long before the Korean conflict. During World War II, when the negative qualities of atabrine were recognized by everyone, American pharmaccutical

(Continued on Page 278)



Constant care in preparation insures efficacy of finished Chloroquine tablet

Chloroquine

• • • • • • • • from page 277

laboratories engaged in intensive research for a better anti-malarial. Nearly 100 new preparations were produced by the Sterling-Winthrop Research Institute, and all were turned over to the Board of the Coordination of Malarial Studies of the U. S. Government's National Research Council. Chloroquine, later to be called Aralen, was among them.

Since that time, 1944, chloroquine has been used in an extraordinarily broad range of clinical investigations. It has checked malaria among school tots in Java; among workers in villages in the Belgian Congo; among the peoples of the Middle East. After comprehensive tests, both the Army and the Veterans Administration placed it on their medical supply tables.

Thus, it came to Korea not as a new, untried, hastily contrived anti-malarial, but as a new drug tested for nearly six years.

# Its Non-Military Role in America

While the extensive clinical investigations were demonstrating its effectiveness in suppressing malaria, many other reports of its utility in treatment of extra-intestinal amebiasis in the United States also were appearing. Amebiasis (all forms) has an incidence here estimated at from 5 to 10 per cent.

Its greater efficacy in amebic infections of the liver rests in part on the following pharmacologic properties: (1) its extensive localization in the liver, some 500 times its plasma concentration, was discovered; (2) its threefold to fourfold less degree of localization within the intestinal walls was brought out; and (3) its almost complete absorption from the gastro-intestinal tract, only 8 per cent of the daily dose being excreted in the feces, so that the contents of the intestinal lumen, especially the colon, contain a small concentration of drug; (4) chronic toxicity studies in human beings have not disclosed any serious toxic symptoms or signs.

Indeed, there have been striking clinical illustrations of the effectiveness of chloroquine in the treatment of amebic hepatitis. Murgatroyd and Kent reported on the treatment of refractory amebic liver abscess with chloroquine, in Transactions of the Royal Society of Tropical Medicine and Hygiene. They described a case of amebic liver abscess which was refractory to surgical treatment and to repeated courses of emetine, penicillin, streptomycin and diodoquin during a

Known in the Army as chloroquine, this new anti-malarial is also known, commercially, as Aralen.

It is one of nearly 100 anti-malarials produced toward the end of World War II as a replacement for atabrine.

Chloroquine has broader medical range than atabrine, and none of the bitter taste or side effects of its predecessor.

It has been used successfully in the treatment of extra-intestinal amebiasis in the U.S.

Chloroquine, combined with another new product, milibis, holds great promise for the greater treatment of amebiasis. since it combats the disease when it exists in organs other than the intestine, while milibis combats the intestinal form.

four-month period. Chloroquine therapy was then tried, with a dosage of 0.25 Gm. three times a day for 19 days. By the fifth day, no amebae were found in the pus draining from the abscess wound, and by the twelfth day, all discharge ceased and the wound was healed. A maintenance dose of 0.25 Gm. twice a week was then prescribed for three months following the patients's discharge from the hospital. No relapse occurred, they reported.

Dr. Neal J. Conan of Columbia University, frequently cited for his work with chloroquine, described his method of treatment of hepatic amebiasis in the American Journal of Medicine.<sup>2</sup> He used chloroquine in seven cases. Dr. Conan also reported on two cases of pleuro-hepatitic amebiasis, which involves both liver abscess and lung complications. Chloroquine was found effective for draining and closed abscesses, and the patients' temperatures fell promptly, although other preparations had proved unsuccessful. It was reported that "Chloroquine has no serious toxicity."

America became "amebiasis conscious" during the Chicago World's Fair, in 1933, when an epidemic of the infection developed, affecting at least 1400 people. Later, visitors to the Fair who had contracted the "amebic dysentery"

<sup>1</sup> Vol. 42, p. 15 (July 1948).

<sup>&</sup>lt;sup>2</sup> Vol. 6, p. 309 (March 1949). (Continued on Page 312)

# DR. HUGO H. SCHAEFER AWARDED REMINGTON MEDAL FOR 1951

Pharmacy's Highest Award will be presented to Dr. Schaefer at eercmonies in New York in the fall.



Dr. Hugo H. Schaefer, Treasurer of the American Pharmaceutical Association, Dean of the Brooklyn College of Pharmacy, and widely known as an officer of many pharmaceutical organizations, has been named recipient of the 1951 Remington Honor Medal, Pharmacy's highest honor. The medal, given by the Association's New York Branch, will be presented at a dinner in New York in the fall. Annually, the Remington Medal is awarded to the individual who has done most for American Pharmacy in the previous year, or whose continuing contributions to the advancement of the profession have been outstanding.

An interesting sidelight to the award this year is the fact that it was Dr. Schaefer himself, in 1918, who suggested that the award be created to honor Joseph P. Remington, who had died January 1, of that year.

The past presidents of the AMERICAN PHAR-MACEUTICAL ASSOCIATION serve as the jury of award. In giving their reasons for the award to Dr. Schaefer the jury referred to his intense unselfish service to the profession over the past 30 years. They also cited his diplomacy in uniting the efforts of various groups engaged in controversies over methods when all are working for the same principle; his leadership in the development of sound educational procedures in American Pharmacy; his outstanding contributions to the work of the U.S.P. and N.F. revision; his very helpful contributions to the solution of problems involving food and drug legislation and his public services as chemist to the New York Board of Pharmacy and adviser to health agencies and to the War Production Board in World War II.

Dr. Schaefer, born in Brooklyn July 3, 1891, has served as Dean of Brooklyn College of Pharmacy of Long Island University since 1937. In addition to that activity, he has been an active

member of many organizations and committees important to pharmacy and the pharmaceutical industry. He is president of the American Association of Colleges of Pharmacy and a member of the Committee on Revision of the United States Pharmacopeia and the Committee on the National Formulary. In these two capacities he has made invaluable contributions to drug standardization, regulation, and control.

His interest in pharmacy and in the growth of the profession is a natural outgrowth of his heritage. His father, George Ludwig Schaefer, studied pharmacy at the University of Bonn and later obtained his doctorate at the University of Berlin. He came to America in 1884 and became vice-president and technical director of the New York Quinine and Chemical Works. Many years later his son, Hugo, joined him in that organization, after receiving his doctorate in pharmacy in 1913 from the New York College of Pharmacy, Columbia University.

After two years with this chemical organization, he entered pharmaceutical education at Columbia University as an instructor in the Department of Chemistry. By 1926 he had risen to an associate professorship. In addition to this work at Columbia, he was the author of many papers and several textbooks and had taken a two-year leave of absence for graduate study at the University of Berne, where he obtained his Ph.D.

Dr. Schaefer is a recognized authority on pharmaceutical law and problems arising under state and federal Food, Drug, and Cosmetic legislation. His influence as an educator is reflected in the activities of thousands of graduates who have passed through his classes at Columbia and Brooklyn over the past thirty years. It was for his human understanding, as well as his professional contributions, that the Jury of Award selected him as the Remington Medalist for 1951.

# PHARMACEUTICAL EDUCATION'S GREAT YEARS

# 1900 To 1951

# by Dr. Hugo H. Schaefer

President, American Association of Colleges of Pharmacy

In the half century within the memory of many of us, educators, and pharmacists have combined in a ceaseless effort to improve professional training and standards. Dr. Schaefer first reviewed this history at the 50th anniversary of Temple University School of Pharmacy.

Passage of time is completely beyond our control and therefore in itself does not warrant any praise or rejoicement. In fact, disappearing years are lost years unless they leave their mark of accomplishment on the road of progress. A half-century milestone gives us an opportunity to reflect, to look back, and to appraise. It is a dividing line in a chronological table and its importance can only be measured by evaluating the events which preceded it and making the best use of such an evaluation in governing our thoughts and actions in coming years. The future is a continuation of the past; the present, a pause for both reflection and planning.

At the beginning of the present century there were 49 colleges of pharmacy in the United States of which all but three are still in existence. With but few exceptions, all of these schools offered two-year courses of instruction leading to a Ph.G. degree. Attendance was limited to three days each week so as to enable students to work in pharmacies during the remaining time.

Fifty years ago the preceptor-apprentice system of training pharmacists prevailed and completion of practical experience over a specified period of time was the general requirement for admission to state board examinations. Anyone seeking a career in pharmacy obtained a position as errand boy in a pharmacy and if after a few years of general service he showed sufficient interest, diligence, and intelligence to deserve encouragement, the employer would serve as his preceptor and try to give him the necessary training to pass the state board examinations and to practice his profession. In many states no state board examinations were required and registration could be obtained merely by submitting proof of the required period of experience. In no state was college graduation obligatory

# THE A. A. C. P. CONTRIBUTION

The great progress which has been made during the past fifty years in pharmaceutical education may be largely credited to the efforts of the American Association of Colleges of Pharmacy Founded in 1900, under the name of The American Conference of Pharmaceutical Faculties, its purpose as stated in its constitution was "to promote the interests of pharmaceutical education."

Progress was slow in those early years and it was not until 1904 that specific minimum qualifications for member colleges were adopted. These consisted of grammar school education for admission to college and the completion of 1100 hours of instruction over a period of not less than 40 weeks for graduation. These requirements were, of course, extremely low. Fortunately many colleges had higher standards and were actively demanding that further steps be taken by the Conference to raise the general level of pharmaceutical education.

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Thus in 1906 completion of one year of high school work or its equivalent was required for admission and the college time was increased to not less than 50 weeks to be given in a period of two years. These requirements were to become effective in 1908 but it was not until 1910 that they became mandatory in all member colleges.

In 1910, also, the National Syllabus Committee published its first Pharmaceutical Syllabus which outlined a minimum course of study for the guidance of the colleges. This committee consisted of representatives of several pharmaceutical organizations and functioned throughout many years. The syllabus was revised periodically to meet changing conditions and exerted a potent influence upon the progress of pharmaceutical education.

# HIGH SCHOOL REQUIREMENT STIFFENED

In 1920 the one-year high school admission requirement was changed to two years and in 1923 full high school graduation became the rule. So also in 1922 it was voted to raise the minimum number of hours of study required for graduation from 1,200 to 1,500 and the length of each school year from 25 weeks to 30 weeks. In 1925 a three-year course of at least 30 weeks embracing 720 hours of work each year was adopted and became the minimum standard.

In the early years of the present century many of the pharmacy college courses were conducted as evening schools. From 1904 on, most of the schools offered daytime courses scheduled over three days per week. It was not until 1932 that the present four-year course with a minimum of five days of instruction per week was made a general requirement of the Association. This

course originally provided a minimum of 3,000 hours of instruction which however, was increased to 3,200 hours in 1932 and this provision is still in effect today.

This outline of the progress of pharmaceutical education in terms of hours, days, and years of instruction does not completely portray the great advances which were made during the last half century. At the beginning of that period very few states had any requirements for the practice of pharmacy other than a year or two of experience. Very few of these early practitioners ever attended college. There were no standards whatsoever for the colleges themselves and many of them were private institutions conducted for financial profit. From this complete absence of any formal educational requirements the passing years have seen the gradual change through an interim period of trade school status to our present high level of recognized university training comparable to that of the other health professions. The march of progress is still going on. There is active discussion at the present time of requiring the completion of a two-year prepharmacy college course for admission to schools of pharmacy and thus increasing the total college attendance time from the present four years to five or six years. Several of our colleges have already adopted such standards.

While these advances in pharmaceutical education can be largely attributed to the aggressive and forward-looking leadership of the American Association of Colleges of Pharmacy yet relatively little could have been accomplished on a National basis were it not for the sympathetic

(Continued on Page 282)

"... One of the State Educational Departments has recently required that registration of a college of pharmacy is dependent upon the number of hours devoted to instruction... This appears to be a bald and bold attempt to establish time as a criterion and not quality or results... This meaningless and false standard for deciding the registration of a school of pharmacy was blindly adopted and followed by a number of the State Boards of Pharmacy. It is surprising how self-respecting men in quasi-official positions can hastily and thoughtlessly accept such a yoke of dictation..."

The fight to improve pharmaceutical education was not won easily, as witness this extract from an address before the 1910 convention of the ASSOCIATION.

# MAJOR STEPS

in the fifty year progress of pharmaceutical education

In 1900, the preceptor system applied in pharmacy, permitting any boy or girl who showed an interest to enter the profession after experience requirements were met.

The American Association of Colleges of Pharmacy is credited with making the first steps toward better educational requirements.

In 1910, the issuance of the first Pharmaccutical Syllabus outlined a minimum course of study for the guidance of the colleges. Revised periodically, this syllabus exerted a potent influence on pharmaccutical education.

Active cooperation with educators by the National Association of Boards of Pharmacy was a key factor in professional growth.

The American Council on Pharmaceutical Education, through its accreditation, brought uniformity among colleges.

The American Foundation for Pharmaceutical Education, through financial support, guaranteed continuance of many colleges during World War II, and contributed largely to the Pharmaceutical Survey, which pointed the way to the 50 years ahead.

# Pharmaceutical Education

• • • • • • • • • • from page 281

and active cooperation of the National Association of Boards of Pharmacy. It was only by making graduation from standardized college courses a prerequisite to state board examinations and to licensure that such a program could become fully effective and result in the elimination of those schools which failed to meet their proper responsibilities. The first prerequisite law was passed in New York State in 1904, and provided that only college of pharmacy graduates were eligible to state board examinations and to eventual licensure. Pennsylvania followed in 1906 and thus became the second state in the Union with such a requirement. By 1921, seventeen states had passed prerequisite laws but it is only recently that such laws have been enacted in . all our states. The present laws in most of our states specify that only graduates of accredited colleges of pharmacy are eligible for admission to the board examination and thus we now enjoy a degree of uniformity of educational standards which have made it possible for a reciprocity procedure for licensure in all but two of our states. Under this procedure licensed pharmacists from one state may obtain a license in another without taking any further examinations. It should be added that the two states which do not offer reciprocity privileges, namely California and New York, have standards fully equivalent to those of the other states but their laws make it mandatory for all candidates for licensure to pass the examinations in those states regardless of whether they are licensed in other states or not.

# THE N. A. B. P. CONTRIBUTION

The National Association of Boards of Pharmacy deserves our full commendation not only for the development and administration of the reciprocal licensing procedures but also for its unfailing support of all measures and policies leading to higher educational and licensure standdards. It is this body which in a large measure has been responsible for making the higher educational standards adopted by the colleges, the minimum legal requirements for the practice of pharmacy.

Throughout the past fifty years this problem of the standardization of pharmaceutical education on a high and reputable basis was a continuing problem. It was obviously desirable that graduates of one college of pharmacy complete courses comparable to those graduating from other institutions. At the beginning of the present century there were no standards for membership in the American Association of Colleges of Pharamcy or the American Conference of Pharmaceutical Faculties as it was then called, but 1904 saw the beginning of the adoption of requirements for membership which have kept pace with the advancing standards previously outlined in this paper. Only colleges which met these required standards could hold membership in the Association, and thus call themselves "member colleges" or "recognized" colleges of pharmacy. These terms acquired a special significance since many states permitted only graduates of such schools to take their state board examinations. It therefore became necessary for the college association to inspect its member colleges as well as those seeking admission in order to assure compliance with its requirements.

### CREATION OF THE A. C. P. E.

As standards advanced this became increasingly difficult since it involved the expenditure of substantial sums of money and took up the time of inspection committees to an inordinate degree. Therefore in 1932 the American Council on Pharmaccutical Education was established for the purpose of assuming responsibility for the accreditation of colleges of pharmacy. Minimum standards for approval were established and all colleges were inspected by committees during the succeeding years. The first list of accredited colleges was published in 1940 and included 54 institutions. The Council has now become the national agency for the accrediting of colleges and schools of pharmacy and is actively supported by the American Association of Colleges of Pharmacy, the National Association of Boards of Pharmacy, and the American Pharmaceutical ASSOCIATION.

# THE FOUNDATION SUPPORT

A wide recognition of the need for private financial support of our educational institutions resulted in 1942 in the establishment of the American Foundation for Pharmaceutical Education. This institution was sponsored by all national organizations of the drug industry for the following stated purposes:

- (a) To uphold and improve pharmaceutical education by aiding colleges of pharmacy and students therein.
- (b) To aid in the creation of sources of unbiased and authoritative investigation

- and experimentation of pharmacutical problems.
- (c) To assist in the selection of important research problems and to provide that the investigations be properly financed, and to insure as far as possible that they be carried out by competent investigators under the supervision of recognized scientific authorities.

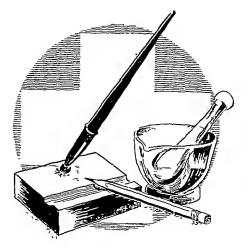
The Foundation has succeeded in collecting many hundreds of thousands of dollars. During the last World War it gave direct help to needy colleges and thus aided them in successfully meeting the critical financial problems of that period. The Foundation is today the greatest single factor in the encouragement of graduate work and research studies in pharmaceutical problems. It has granted many hundreds of graduate scholarships and the recipients of these awards will be a potent factor in the future development of pharmaceutical education and research.

The Foundation by an initial grant of almost \$100,000 also made it possible to inaugurate the Pharmaceutical Survey. This represented the assembling and unbiased study of the critical facts relating to pharmaceutical education, practices, services, and trade. Further substantial grants were made before this monumental task was completed and the published reports and findings have already resulted in many constructive measures of great benefit to professional pharmacy.

The present evaluation and classification of colleges of pharmacy under the direction of the American Council on Pharmaceutical Education is made possible largely through the financial support of the Foundation. Various activities of the American Association of Colleges of Pharmacy also receive substantial support in the form of cash grants from that organization. The Foundation through the generosity of its contributors and the wisdom and farsightedness of its leaders has been and we hope will continue to be a potent influence in the future of our profession.

We now stand on the threshold of a second half century, but I have a fervent faith that the challenges and problems of the coming years will be successfully met by the profession and that we are entering into an era of further progress far beyond anything which we can now visualize.

This all too brief outline of the progress of pharmaceutical education and prestige clearly shows that the first half century of existence and growth of the Temple University College of Pharmacy has also seen pharmacy acquire the status of a fully recognized profession.



# Lureomycin suppositories

Studies by the Laboratory of the AMERICAN PHARMACEUTICAL ASSOCIATION indicate fundamental compounding limitations

REQUESTS by physicians for aureomycin in the dosage form of suppositories offer pharmacists an opportunity to practice their professional art. In this particular instance, the pharmacist must have certain information before he can intelligently apply his compounding technique. The laboratory of the AMERICAN PHARMACEUTICAL ASSOCIATION has studied the preparation of these suppositories in order to supply this information to the practicing pharmacists.

The first circulated report of the extemporaneous preparation of suppositories containing aureomycin hydrochloride referred to the use of glycerinated gelatin base. In view of that, we prepared and tested suppositories prepared with glycerinated gelatin and glycerin according to the U. S. P. procedure. Our work brought out several objections to this procedure.

Our plastic mold yields suppositories that weigh about 2.35 Gm. In order to prepare 12 glycerinated gelatin suppositories each to contain 100 mg. of aureomycin hydrochloride, enough material was used to account for 14 suppositories. This was necessary because only 12 suppositories could be poured from that amount of the heated mass. Obviously, the waste of 200 mg. of aureomycin was both expensive and impractical.

The second objection to this technique was in loss of antibacterial activity due to heat. In our studies, we found that aureomycin hydrochloride loses about 30% of its antibacterial activity when heated in the glycerinated gelatin mixture at 100° C. for 10 to 15 minutes. This is just long enough to thoroughly incorporate the glycerin suspension of the drug and pour the melted mass into a mold. Further study showed that the completed suppositories, if kept in a refrigerator, will remain relatively stable for a period of several weeks, which is longer than would be necessary for one course of treatment in the usual conditions

for which the aureomycin is indicated. -However, the original loss of 30% of the antibacterial activity, at the time of preparation, is too great.

Recognizing those two objections, we considered other methods. We mention them here, with our observations, because in all probability they represent techniques evolved by pharmacists throughout the country.

The suggestion that the glycerin suspension might be added to the melted glycerinated gelatin in the mold is not practicable. Other suggestions included the use of the commercial capsule as a suppository; packing the commercial capsule in a larger capsule with lactose and using the larger capsule as a suppository; piercing a hole in the commercial capsule and placing the capsule in a suppository mold with melted glycerinated gelatin. In these latter dosage forms the aureomycin hydrochloride is not dispersed. When the surrounding material dissolves or disintegrates, the bulk of the drug comes in contact with a small surface of the colon. Aureomycin hydrochloride gives an acid reaction which might add irritation of the colon to the resulting actions.

# Recommended Suppository

In view of the variety of objections to all previously tested methods, we turned to a study of different vehicles for the combination. If the physician desires the aureomycin hydrochloride to be dispensed in the form of suppositories, we recommend the use of theobroma oil as the vehicle. Use grated theobroma oil and incorporate the drug at room temperature or in a chilled mortar. Roll a pipe and shape bullet suppositories by hand. If the fusion process must be used, do not allow the temperature to exceed 45–50° C.

This product, if kept in a refrigerator, will limit compounding deviation caused by loss of antibacterial activity and will assure the physician that the patient will receive the prescribed dosage of aureomycin hydrochloride.

Vol. XII, No. 5



# PRESCRIPTION PRODUCTS

This monthly listing of new prescription products is designed for casy insertion in a ring binder. Simply lift out the eight pages, punch holes where marked, and slip into an 8½, x 11 binder. A continuing six month index appears on the sixth and seventh pages for quick reference. Manufacturers are urged to send their new product information to the Executive Editor, American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C., for inclusion in this free copyrighted editorial service.

# ACTH "National"

Description: A colloidal solution ready to inject. Prepared by a special process to insure stability; refrigeration is not required.

Indications: Certain collagen diseases, metabolic diseases, nephrotic syndrome, ulcerative colitis, hypersensitivities, and diseases of the skin, as reported in the literature.

Administration: As directed by physician.
Form Supplied: 10-cc. multiple dose vials.

Source: National Drug Company, Philadelphia, Pa.

# ALCETIN TABLETS

Description: Rapidly disintegrating white tablets each containing: dextro-amphetamine sulfate, 2.5 mg.; acetophenetidin, 162.0 mg.; and acetylsalicylic acid, 227.0 mg.

Indications: Indicated in a wide range of painful conditions such as philebitis, bursitis, headache, sinusitis, neuralgia, myalgia, neuritis, toothache, arthritis, dysmenorrhea; and for suppressing the fever associated with infections. Also tends to counteract the depressant effect of analgesic drugs upon heart and circulation.

Administration: One or 2 tablets, 3 or 4 times daily, or as directed by physician.

Form Supplied: Bottles of 100 and 1000 tablets. Source: Pitman-Moore Co., Division of Allied Laboratories, Inc., Indianapolis, Ind.

# AMSALIN CAPSULES

Description: Capsules, containing: d-amplictamine phosphate, 1.0 mg.; pyrilamine maleate, 12.0 ng.; thenylpyramine fumerate, 12.0 mg.; salicylamide, 150.0 mg.

Indications: Designed for symptomatic relief of the common cold.

Administration: As directed by physician. Form Supplied: Bottles of 100, 500, and 1000. Source: Irwin, Neisler & Co., Decatur, Ill.

# AQUASOL A-C-D DROPS

Description: Each 0.6-ee. solution provides: vitamin A (natural), 5000 U. S. P. units; vitamin C, 75.0 mg.; vitamin D (natural), 1000 U. S. P. units.

Indications: For prevention and treatment of vitamin A, C, and D deficiencies in infants, children, and adults, particularly in those with conditions characterized by impaired fat absorption (dysfunctions of the liver, pancreas, biliary tract, and intestines; celiac disease, sprue, and other diarrheal conditions).

Administration: Infants: administer directly on baby's tongue. Mixes readily with formula, milk, desserts, and other foods.

Form Supplied: Bottles of 15 cc. and packages of 30 cc., with dosage-marked droppers.

Source: U. S. Vitamin Corp., New York, N. Y.

# AQUASPERSE VITAMIN A C D DROPS

Description: An aqueous, hypoallergenic solution containing in each 0.6 cc.: vitamin A, 5000 U.S.P. units; vitamin D, 1000 U.S.P. units; and ascorbie acid, 50 mg.

Indications: For patients who do not tolerate natural sources of vitamin C, and who suffer allergic reactions to oil-soluble vitamins derived from fish oil sources.

Administration: As directed by physician.

Form Supplied: Bottles of 15 and 30 ec., with droppers calibrated for 0.3 and 0.6 ec.

Source: White Laboratories, Inc., Newark, N. J.

# BEMOTINIC CAPSULES

Description: Capsules, each containing: ferrous sulfate exsiceated, 200.0 mg.; vitamin  $B_{12}$ , 10.0 mg.; gastrie mucosa (dried), 100.0 mg.; desiceated liver substance, 100.0 mg.; folie acid, 0.67 mg.; thiamine IICl, 10 mg.; vitamin C, 50.0 mg.

(Continued on next page)





# PRESCRIPTION PRODUCTS (Cont.)

Indications: For treatment of iron-deficiency and macrocytic anemias.

Administration: Adults: One or 2 capsules three times daily, or as directed by physician.

Form Supplied: Bottles of 100 and 1000.

Source: Ayerst, McKenna & Harrison Limited, New York, N. Y.

# BETA-CONCEMIN FERRATED CAPSULES AND ELIXIR

Description: Elixir—Each 30 cc. (1 fluidounce) contains: thiamine bydrochloride, 60.0 mg.; riboflavin, 12.0 mg.; niacinamide, 60.0 mg.; pyridoxine bydrochloride, 6.0 mg.; ferrous gluconate, 2.0 Gm.; and vitamin B<sub>12</sub> activity, 12.0 mcgm., contributed by a special extract derived from liver and vitamin B<sub>12</sub> as in streptomyces fermentation extractives. Capsules—Each capsule is equivalent to 1 teaspoonful of the elixir, or one-sixth of the above formula.

Indications: Antianemic tonic supplying sufficient factors for hematopoiesis particularly in the hypochromic microcytic anemias, including nutritional deficiency, iron deficiency, and chronic blood loss.

This preparation is not intended for the treatment of pernicious anemia.

Administration: Elixir: 5 to 10 cc. (1 to 2 teaspoonfuls) three times daily, followed by water. Capsules: 1 to 2 capsules, three times daily. (Children and infants proportionately less.)

Form Supplied: Elixir: 12-ounce and gallon hottles. Capsule: Bottles of 100 and 1000.

Source: The Wm. S. Merrell Co., Cincinnati, Obio.

# DI-MET

Description: A balanced combination of male and female sex hormones in single-dose form. Each tablet contains 1.0 mg. of estradiol and 10.0 mg. of methyl testosterone. The injectable form, known as Di-Met (BP), contains in each cc. 1.0 mg. of estradiol benzoate and 20.0 mg. of testosterone propionate.

Indications: For the control of acute menopausal symptoms and of menopausal osteoporosis.

Administration: In the treatment of menopausal symptoms the usual daily dosage by the oral route

is 1 or 2 tablets per day. Buccally, the dose is 1/2 to 1 tablet every day or on alternate days. Intramuscularly, the dosage is 0.5 cc. two or three times a week. Similar dosage is recommended for menopausal osteoporosis, in addition to which needed hond-building materials should be provided.

Form Supplied: Di-Met tablets: Bottles of 30 and 100. Di-Met (BP): 10-cc. vials.

Source: Organon Inc., Orange, N. J.

# EBICOL ELIXIR-MRT

Description: An adjusted, palatable formula representing therapy in an essential form for lipotropic action in derangements of fat metabolism. Each teaspoonful (5 ml.) contains: vitamin B<sub>1</sub>, 1.0 mg.; vitamin B<sub>2</sub>, 2.0 mg.; niacinamide, 10.0 mg.; choline citro phosphate, equivalent to choline, 400.0 mg.; inositol, 200.0 mg.; liver fraction 1 N. F., 250.0 mg.; yeast concentrate, 250.0 mg.; extract of rice hran, 250.0 mg.; honey, 250.0 mg.; and potassium acetate, 100.0 mg.

Indications: Offers lipotropic therapy in liver disease and derangements of fat metabolism where high plasma cholesterol levels are associated with atherosclerosis and arteriosclerosis. Indicated in coronary disease where there is a high total serum cholesterol. Not limited to cases of liver disease and fat metabolism but is now recognized as heing highly valuable in fat and carbobydrate metabolism.

Administration: One teaspoonful to I tablespoonful with meals three times daily, or as directed by physician.

Form Supplied: Bottles of 1 gallon and 8 fluidounces.

Source: Marvin R. Thompson, Inc., Stamford, Conn.

# **FERROPHYLL**

Description: Hematinic tablets, each containing: exsiccated ferrous sulfate, 200.0 mg.; sodium potassium copper chlorophyllin, 25.0 mg.; and vitamin B<sub>12</sub>, 2.0 mcg.

Indications: For rapid and sustained therapeutic response in hypocliromic or secondary anemias; especially valuable in acute anemia secondary to chronic hemorrhage.

Administration: 1 tablet three times daily.

Form Supplied: Bottles of 50.

Source: Lakeside Laboratories, Inc., Milwaukec, Wis.



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# GANTRISIN DIETHANOLAMINE OPHTHALMIC

Description: Sterile, isotonic, buffered solution containing 4% Gantrisin in the form of its diethan-olamine salt.

Indications: For the treatment of eye infections. Administration: As directed by physician.

Form Supplied: 1-ounce vial with dropper. Source: Hoffmann-La Roche, Inc., Nutley, N. J.

# **GERONE**

Description: A solution containing in each 5 cc.: dextro-amphetamine sulfate, 2.0 mg.; thiamine hydrochloride, 2.0 mg.; nicotinamide, 10.0 mg.; riboflavin, 0.5 mg.; pyridoxine hydrochloride, 0.5 mg.; and calcium pantothenate, 1.0 mg.

Indications: Indicated in psychic fatigue, mental depression, malaise, muscular weakness, neurasthenia, and general nutritional inadequacy.

Administration: One to 2 teaspoonfuls (5-10 cc.) three times a day, depending upon the requirements of the patient. Should be administered immediately after meals. Contraindications in persons with agitated psychotic states and hyperexcitability.

Form Supplied: 8-oz. bottles.

Source: Pitman-Moore Co., Indianapolis, Ind.

# GYNETONE TABLETS

Description: Tablets, each combining Estradiol U. S. P., 1.0 mg.; and Methyltestosterone U. S. P., 10 mg.

Indications: For simultaneous male and female hormone therapy with a correct balance of the hormones for the majority of cases, and for relief of menopausal symptoms.

Administration: Menopause: initially, 1 tablet per day, gradually reducing the dosage as symptoms are controlled.

Form Supplied: Bottles of 30 and 100. Source: Schering Corp., Bloomfield, N. J.

# HAEMOL (FORTIFIED)

Description: Tablets, each containing: liver, desiccated (defatted), 3 gr.; ferrous sulfate, exsiccated, 2 gr.; thiamine mononitrate, 3.0 mg.; ribo-flavin, 1.0 mg.; niacinamide, 9.0 mg.; B<sub>12</sub> (equivalent), 2.0 mcg.

Indications: For use in secondary anemia, hypochromic anemia of pregnancy, and nutritional macrocytic anemia.

Administration: 3 to 6 tablets daily as directed by physician.

Form Supplied: Bottles of 100, 500, and 1000. Source: Irwin, Neisler & Co., Decatur, Ill.

# **HEMO-VATINE**

Description: Ampoule vials each containing: vitamin  $B_1$ , 10.0 mg.; vitamin  $B_2$ , 2.0 mg.; vitamin  $B_6$ , 5.0 mg.; vitamin  $B_{1^\circ}$ , 5 micrograms; sodium pantothenate, 5.0 mg.; niacinamide, 100.0 mg.; folic acid, 5.0 mg.; and crude liver, 2 units.

Indications: Indicated in the treatment of B complex deficiencies. Recommended in patients with obscure symptoms such as numbness and tingling in the legs, sore lips and tongue, as well as in pellagra, beriberi, ariboflavinosis, and certain macrocytic anemias.

Administration: Subcutaneous or intramuscular injection, the contents of one vial is the average dose. In severe deficiency, 2 or more doses daily until improvement. In moderately severe cases, 1 dose on alternate days. For fortification prior to surgery, 1 or 2 injections daily for several days. This solution is not to be administered intravenously.

Form Supplied: Combination packages of six 2-cc. vials with one 10-cc. vial of diluent.

Source: Smith-Dorsey Co., Lincoln, Neb.

# NEUTRAZYME SUPPOSITORIES

Description: Suppositories, each containing sodium lauryl sulfate, 100.0 mg.

Indications: For relief of "idiopathic" anal pruri-

Administration: One to 2 suppositories daily according to the needs of the patient. In more severe cases, one suppository inserted after each bowel movement.

Form Supplied: Bottles of 12.

Source: Smith-Dorsey Co., Lincoln, Neb.

# N P H ILETIN

Description: Injectable insulin preparation with prompt onset and prolonged action.

Indications: For management of diabetes.

Administration: As directed by physician.

Form Supplied: Bottles of 10 cc. with tamperproof aluminum seal which is easily removed at the time of use. The aluminum seals have colors keyed in accordance with the concentration: red for 40 units per cc., or, green for 80 units per cc.

Source: Eli Lilly and Company, Indianapolis, Ind.

(Continued on next page)

# PENTRIZINE TABLETS

Description: Tablets, each containing: penicillin G. potassium, 100,000 units; sulfadiazine, 0.17 Gm.; sulfamerazine, 0.17 Gm.; sulfamethazine, 0.17 Gm.

Indications: For use in infections susceptible to penicillin and sulfonamides, particularly in mixed infections.

Administration: Adults: Initial dosage is 6 tablets, followed by 2 tablets every four hours. When fever abates, maintenance dosage may be 2 tablets every six hours. Children: Up to six months, initial dose is 1½ tablets followed by ½ tablet every six bours. Six months to three years, initial dose is 3 tablets followed by 1 tablet every six bours. Three to ten years, initial dose is 6 tablets followed by 2 tablets every six hours.

Form Supplied: Bottles of 24.

Source: The Tilden Company, New Lebanon, N. Y.

# PRENATAL CAPSULES

Description: Capsules, each containing: vitamin A, 2400 U. S. P. units; vitamin D, 400 U. S. P. units; thiamine HCl, 2.0 mg.; riboflavin, 2.0 mg.; ascorbic acid, 25.0 mg.; nicotinamide, 7.0 mg.; Folvite folic acid, 1.0 mg.; calcium (in CaHPO<sub>4</sub>), 250.0 mg.; phosphorus (in CalIPO<sub>4</sub>), 190.0 mg.; dicalcium phosphate anhydrous (CaHPO<sub>4</sub>), 869.0 mg.; iron (in exsiccated FeO<sub>4</sub>), 6.0 mg.; ferrous sulfate exiccated (FeSO<sub>4</sub>), 20.9 mg.; and manganese (in MnSO<sub>4</sub>), 0.12 mg.

Indications: A vitamin and mineral dietary supplement for use in prenatal care and lactation.

Administration: As directed by physician.

Form Supplied: Bottles of 100 and 1000.

Source: Lederle Laboratories Division, American Cyanamid Company, New York, N. Y.

# RU-NITRAL WITH THEOPHYLLINE

Description: Scored tablets, each containing: mannitol hexanitrate, 32.0 mg.; rutin, 20.0 ng.; theophylline, 100.0 mg.; and phenobarbital, 16.0 mg.

Indications: Indicated in relief of patients with congestive heart failure, hypertension, pulmonary edema, angina pectoris, cardiac edema, cardiac hypertrophy, and paroxysınal dyspnea.

Administration: One or 2 tablets every four to six hours.

Form Supplied: Bottles of 100.

Source: The Paul Plessner Co., Detroit, Mich.

# AY



# SEDORZYL

Description: Liquid preparation containing in each teaspoonful (5-cc.): phenobarbital, 1/s grain; organidin (R), 10 minims; ephedrine sulfate, 1/4 grain; benzyl alcobol, 1 minim; and alcohol, 3.5%.

Indications: For relief of respiratory congestion, especially for the symptomatic treatment of mild asthma, allergic seizures, hay fever, chest colds, tracheitis, and bronchitis.

Administration: Adults: 1 teaspoonful every 2 to 4 hours. Children: proportionately less, as directed by physician.

Form Supplied: 1-pint bottles.

Source: Henry K. Wampole & Co., Inc., Philadelpbia, Pa.

# THIOCARBARSONE

Description: Synthetic trivalent arsenical with more pronounced amelicidal action than carbarsone.

Indications: In treatment of Endomeba histolytica infections in the bowel or intestines.

Administration: Adults 1:00.0 mg. three times daily for ten days by retention enema or enteric-coated tablets. Children: 4.0-6.0 mg. per Kg. of body weight, given daily in 3 or 4 portions.

Form Supplied: "Enseals" Thiocarbarsonc, for oral administration: 25.0 and 50.0 mg. in bottles of 100. Powder Thiocarbarsonc solubilized: packages of six vials (No. 63), each vial containing 0.5 Gm. Thiocarbarsone and 1.8 Gm. sodium bicarbonate.

Source: Eli Lilly and Company, Indianapolis. Ind.

# TRUOZINE (Veterinary)

Description: Tablets, each containing 20 gr. (1.33 Gm.) each of sulfadiazinc, sulfamerazine, and sulfamethazinc. Each tablet equivalent in antibacterial effect to 60 gr. of a single sulfonamide.

Indications: In any case of acute bacterial infection in which the component drugs are specifically indicated.

Administration: In large animals an adequate blood level may be achieved by an initial dose of 1/2 to 3/4gr. per pound of body weight, or approximately 60 gr. per 100 pounds. This is to be followed by maintenance doses of 15 to 18 gr. per 100 pounds every 8 hours. Initial dose may be given intra-

# PRESCRIPTION PRODUCTS

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venously with Duozine Sodium 10% solution, Vet., followed by maintenance doscs of Truozine tablets

Form Supplied: Bottles of 50.

Source: Abbott Laboratories, N. Chicago, Ill.

# VADCON

Description: Water-miscible liquid vitamin concentrate containing in each co.: vitamin A palmitate, U. S. P., 10,000 units; natural vitamin D concentrate, U. S. P., 2000 units.

Indications: Vitamin Supplement.

Administration: Can be taken alone or mixed with foods, upon advice of physician.

Form Supplied: 30-cc. dropper bottles.

Source: Walker Vitamin Products, Inc., Mount Vernon, N. Y.

# VI-AQUA

Description: Capsules, each containing: vitamin A (natural), 5000 units; vitamin D (calciferol), 500 units; thiamine HCl, 5.0 mg.; riboflavin, 5.0 mg.; vitamin B<sub>11</sub>, 1.0 mcg.; niacinamide, 20.0 mg.; pyridoxine HCl, 0.5 mg.; d, calcium pantotbenate, 5.0 mg.; ascorbic acid, 50.0 mg.; and dl, Alpha-to-copheryl acetate, 1.0 mg.

Indications: For prevention and treatment of multiple vitamin deficiencies, particularly in conditions where absorption of fat is impaired.

Administration: One, 2, or more capsules daily as required.

Form Supplied: Bottles of 50, 100, and 1000. Source: U. S. Vitamin Corp., New York, N. Y.

# VIFORT CAPSULES

Description: A soft gelatin capsule containing: in water soluble solution: vitamin A, 5000 units; vitamin D, 500 units; ascorbic acid, 60 mg.; thiamine mononitrate, 3.0 mg.; riboflavin, 2.0 mg.; nieotinamide, 20.0 mg.; panthenol, 5.0 mg.; pyridoxine hydrochloride, 0.3 mg.; and tocopherol, 2.0 mg.

Indications: As a plyvitamin supplement for adults and children in a truly water-soluble form for complete absorption.

Administration: One capsulc daily or as directed by physiciau.

Form Supplied: Bottles of 30, 100 and 250.

Source: Endo Products, Inc., Richmond Hill, Longl Isand, New York.

# Other New Products

(Chemicals, clinical trial drugs, diagnostic aids, and equipment for the retail and hospital pharmacy)

# Permanent Cartridge Demineralizer

A new permanent cartridge demineralizer with exclusive Flow Meter has been designed for users of up to 10 gallons per hour of high purity water. The unit is equipped with a Flow Meter, a slight indicator that enables the operator to adjust intake flow to the proper rate for producing water comparable to distilled in solids-free purity, and also has a built-in electric conductivity meter which provides continuous visual indication of the quality of the treated water, warning when the resin charge should be renewed. With raw water containing 5 grains of solids, one resin charge will provide 200-230 gallons of demineralized water.

Manufactured by: The Penfield Manufacturing Co., Inc., Meriden, Conn.

# Safety Dispenser Closure

A two-piece plastic closure, fabricated of plastic material, has been designed to stay on when medicine, cosmetics, or household necessities are poured from a bottle. The closure opens on the top by means of a hinge and the liquid is poured through a small opening, sealed by a snap, on the under-surface of the closure. The material contained in the bottle is completely scaled off from the outside air and contamination, thus preventing evaporation of any volatile liquids.

Distributed by: Jamco Products Co., 111 Fifth Avenuc, New York, N. Y.

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PRODUCTS RECENTLY ACCEPTED BY THE A. M. A. COUNCIL ON PHARMACY AND CHEMISTRY



Council descriptions of new drug products only are published regularly in This Journal as they are accepted. Rules upon which the Council bases its action appeared in the July (7:320) 1946 issue, and may be secured in pamphlet form upon request to the Secretary, Council on Pharmacy and Chemistry. American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.

BETHANECHOL CHLORIDE.--Urecholine Chloride (Merck).—C7H17ClN2O2.—M. W. 196.68. —β-Methylcholine carhamate chloride.—Urethane of \beta-methylcholine chloride.—The structural formula of bethanechol chloride may be represented as follows:

Actions and Uses .- Bethanechol chloride has choline chloride but differs from acetylcholine in that it exhibits little if any ganglionic stimulating action and is not destroyed by choline esterasc. It is less toxic than some other esters of choline but is also less active.

Bethanechol chloride is useful in the treatment of conditions which are relieved by stimulation of the parasympathetic nervous system. It has been used successfully in the treatment of gastric retention following vagotomy, in postoperative urinary retention and in postoperative abdominal distention.

Although the drug has been tried in a number of other conditions which sometimes respond to parasympathetic stimulation, its precise role is not fully established. It may, however, be tried in such disorders as megacolon, adynamic ileus accompanying severe trauma, acute infections, neurogenic disorders, neurogenic atony of the urinary bladder with retention and gastric atony and retention following gastric surgery.

Dosage.—The optimum method of administration and the dosage must be determined for the individual. Mild or moderately severe disorders may respond to oral therapy, whereas severe maladies may require subcutaneous injection of the drug.

Oral doses of 10 to 30 mg. of bethanechol chloride three or four times daily meet most needs. effect of the drug is sometimes apparent within 30 minutes.

The drug should never be given intravenously or intramuscularly. It may be administered subcutaneously to patients who do not respond to oral therapy or to those whose physical condition precludes it. The usual suhcutaneous dose is 5 mg. (1 cc.), although some patients respond satisfactorily to as little as 2.5 mg. (0.5 cc.). It is suggested that the minimum effective dose he determined in each case by injecting 2.5 mg, initially and following this with a second, third or fourth dose of similar size at 15 to 30 minute intervals if neither satisfactory response nor disturbing side effects result. The optimum dosc thus determined may be repeated 3 or 4 times daily, if required. Subcutaneous injection of single doses up to 10 mg. may be necessary to produce a satisfactory response, but such doses should be given only after adequate trial with doses of 2.5 to 5 mg. Unpleasant and occasionally severe side effects may occur following subcutancous doses of 5 to 10 mg. All effects of the drug can be abolished promptly by subcutaneous or intravenous injection of 0.6 mg. atropine sulfate.

Physical Properties: Bethanechol chloride is a white, crystalline solid, with an amine-like odor. It melts hetween 217 and 220° C. with decomposition. It is very soluble in water; freely soluble in alcohol; and practically insoluble in chloroform, benzene and ether. The pH of a 0.5 per cent solution is between 5 c and 6.3. tween 5.5 and 6.3.

### Dosage Forms of Bethanechol Chloride

Solution. Assay: Pipet into a test tube an amount of the solution equivalent to 15 mg. of hethanechol chloride. Dilute to 10 ml. with water and proceed with the spectrophotometric determination described in the monograph for Bethanechol Chloride starting with, "... add 5 ml. of a freshly prepared and filtered saturated solution of ammonium reineckate. ..." The amount of hethanechol chloride prevent is not less than 90.0 nor more than than 110.0 per cent of the labeled amount.

Tablets. Asray: Accurately weigh 30 tablets and grind them. Weigh out an amount equivalent to about 0.15 Gm. of bethanechol chloride and transfer it to a glass-stoppered Erleameyer flask. Add 50 ml. of water, shake the flask for 2 hours, filter the mixture through a fritted glass funnel into a 250-ml suction flask, wash the precipitate with ten 10-ml, portions of water, resuspending the precipitate by stirring at each woshlog and collecting the washings in the flask. Transfer the solution to a 200-ml. volumetric flask. Make up to the mork with water. Transfer 10 ml. of the solution to a test tube and carry out the spectrophotometric determination described in the monograph for Bethanechol Chloride starting with, "... add 5 ml. of a freshly prepared and filtered soturated solution of ammonium reineckate. .." hut make up the fioal acctone solution to 10 ml. instead of 25 ml. The amount of hethanechol choride present is not less thon 90.0 nor more than 110.0 per cent.

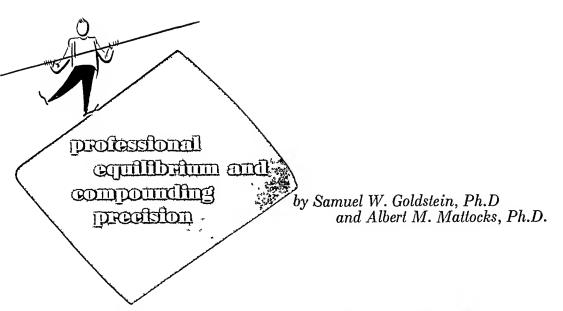
[For more detailed information regarding oction and uses and for tests and standards, see J. Am. Med. Assoc., 145: 14 (1951).]

Merck and Company, Inc., Rahway, N. J.

Tablets Urccholine Chloride: 5 mg. U. S. Trademark 389,307.

Solution Urecholine Chloride: 1-cc. ampuls. A solution containing 5 mg. of bethanechol chloride in each cc.





# **How to Test Your Prescription Balance**

Part II of this special article from the laboratory of the AMERICAN PHARMACEUTICAL ASSOCIATION on compounding precision outlines simple tests the pharmacist may follow to determine the accuracy of his prescription balance. Part I, on balance specifications, appeared in the April issue. Part III, on techniques of weighing, will appear next month.

DWARD Partish's Treatise on Pharmacy which was brought up to date by a revision in 1884 stated: "It is well to try the accuracy of the scales occasionally, as well by weighing exceedingly small quantities upon them when balanced by heavy weights, as by using two weights known to be equal and changing them to the opposite sides of the beam, this will show, at once, if there be the least deflection in either arm of the beam." When we explain that the exceedingly small quantity is 10 mg. and that it should cause a deflection of 1 space on the index scale, and that this should also happen when the weight is added when the pans are empty, two of the four important tests are covered. If we add the statement that simultaneous movement of equal weights to different positions of the pans should produce no more deflection from the point of equilibrium than can be overcome by addition of a 20-mg. weight, and that the beam weights should be checked against known weights, we have covered the four tests.

Now let us repeat, giving more detailed information, the testing procedure and the interpretation of the results.

There are four basic tests to be made on a prescription balance: (1) sensibility reciprocal (sensitivity), (2) arm ratio, (3) shift test, and (4) graduated beam and rider test. The N. B. S. tolerances given here are for Class A balances. Class B tolerances are 2.5-3 times as great. A seated position is most convenient for the tester if the balance has an upright index scale.

One can adjust the balance to obtain equal swings of the pointer to right and left or up and down (depending on type of indicator), or to obtain stoppage or "rest" with perfect alignment of double pointers. However, the rest point can be determined more conveniently as follows without waiting for oscillations to stop. Allow the beam to oscillate and read, to the nearest division or fraction of a division, three successive oscillations. If the balance has two pointers read the oscillations of the right-hand pointer only. Let the center division be called zero, reading oscillations to the left as negative and those to the right as positive. The first and third readings can be positive and will represent oscillations in the same direction, while the second will be negative and in the opposite direction (see Fig. 1).

Average the first and third readings, and average this value with the second reading. The result is the point at which the indicator would come to rest if one waited until oscillations

(Continued on next page)

# Professional Equilibrium

• • • • • • • • • • • • • • from page 293

ceased. For example, with a single pointer which oscillates left and right, let us suppose that we make the following readings:  $1^{1}/_{4}$ , -3, 1, the arithmetic becomes

(a) 
$$\frac{1^{1}/_{4} + 1}{2} = 1^{1}/_{8}$$
  
(b)  $\frac{1^{1}/_{8} + -3}{2} = -\frac{15}/_{16}$  (rest point)

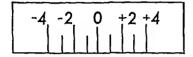


Fig. 1. Index plate of single pointer balance

In a second case suppose the balance has double pointers, let only the right-hand pointer be read, and let values above the center division be positive, those below, negative (see Fig. 2).

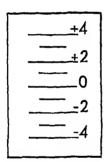


Fig. 2. Index plate of double pointer balance

The following readings are made:  $1^3/4$ ,  $-1^1/2$ ,  $1^1/2$ . Then:

(a) 
$$\frac{1^3/_4+1^1/_2}{2}=1^5/_8$$

(b) 
$$\frac{1^{5/8} + -1^{1/2}}{2} = + \frac{1}{16}$$
 (rest point)

In order to carry out an adequate test of the presciption balance in a simple and satisfactory manner, it is necessary to have a set of test weights. This set consists of two 10-Gm., one 1-Gm., one 500-mg., one 20-mg., and one 10-mg. weights, all of which should be adjusted to National Bureau of Standards Class B tolerances. These weights should be kept in a closed box, suitably protected from dust and corrosive fumes, and should be handled only with forceps. If properly cared for, they will last a lifetime. Sets of these test weights may be obtained from the prescription balance manufacturers at a reasonable price.

# THE FOUR TESTS

The rider on the graduated beam must be at its zero position at all times during testing operations except when movements of the rider are specifically called for in the test of the graduated beam and rider.

# 1. Sensibility Reciprocal

This is the amount of weight that must be added to one pan to procure a change of one division on the index plate in the rest point of the balance. The smaller the weight required to move the indicator the specified distance, the more sensitive is the balance.

The Bureau of Standards requires a sensibility reciprocal of 13 mg. (0.2 grain), or the value of two of the smaller divisions on the weighbeam, whichever is less. With most balances this will be 13 mg., since the small graduations on the beam are 10 mg. each. For practical purposes it is most convenient to test for the sensibility reciprocal by using a 10-mg. weight. First, make sure that the balance is level, and then without any weights on the pans, determine the rest point of the indicator. In all determinations of rest point the balance lid should be closed so as to prevent drafts from affecting the oscillations. Now add a 10-mg, weight to the right pan. The rest point should be shifted not less than one division on the indicator scale. Next, test for the sensibility reciprocal with a 10-Gm. load. Place one of the 10-Gm. test weights on the center of each of the pans, note the rest point, add a 10-mg. weight to the right pan and again determine the rest point. In this case, also, the change in rest point should be not less than one division. This series of tests for sensibility reciprocal with different loads is a direct test for sensitiveness of the scale. Many prescription balances will have a much higher sensitiveness, and at the time of manufacture all have almost twice this sensitiveness. It must be borne in mind, then, that it is the minimum sensitiveness that is being tested for, and if a balance barely meets the test, it is wise to have it cleaned and readjusted.

# 2. Arm Ratio

This test indicates errors of construction of the balance, specifically errors in the equality of length of the two arms of the balance. To make this test, first determine the rest point of the balance without any weight on the pans. Then place in the center of each pan one of the 10-Gm. test weights, and determine the rest point. If the rest point is not the same as it was with no weights on the pans, place the 10-mg. weight on the lighter side; the rest point should move back to the

original place on the scale or farther. If the 10-mg, weight does not overcome any differences in rest point, as compared with the rest point with no weights on the pans, the arm-length error is excessive and the balance should be repaired.

## 3. Shift Tests

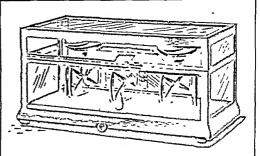
The shift tests reveal errors in the balance caused by damage or faulty manufacture of the beam and lever components. This series of tests is particularly valuable when there has been some abuse of the balance. A shift test may be carried out as follows:

- A. Determine the rest point of the indicator without any weights on the pans.
- B. Place one of the 10-Gm. weights in the center of the left pan, and place the other 10-Gm. weight successively toward the right, left, front, and back side of the right pan, noting the rest point in each case. If in any case the rest point differs from the rest point determined in step A, add the 20-mg. weight to the lighter side; this should cause the rest point to shift back to the rest point determined in step A or farther.
- C. Place a 10-Gm. weight in the center of the right pan, and place a 10-Gm. weight successively toward the right, left, front, and back side of the left pan, noting the rest point in each case. If in any case the rest point is different from that obtained with no weights on the pans, this difference should be overcome by addition of the 20-mg. weight to the lighter side.
- D. Make a series of observations in which both weights are simultaneously shifted to off-center positions on their pans, both toward the outside, both toward the inside, one toward the outside, and the other toward the inside, both toward the back, and so on until all combinations have been checked. If in any case the rest point differs from that obtained with no weights on the pan the addition of the 20-mg. weight to the lighter side should overcome this difference.

A balance which does not measure up to these tests *must* be corrected.

# 4. Rider and Graduated Beam Tests

Determine the rest point for the balance with no load on the pans. Now place on the left pan the 500-mg, test weight and move the rider to the 500-mg, point on the beam. Now determine



# Authors' Summary

There are four basic tests to be made on a prescription balance.

Before beginning tests, adjust balance accurately to "rest point." Methods to follow to make this adjustment are presented.

Sensibility reciproeal (sensitivity) is the major aim of test 1.

Errors of construction in the balance (equality of arm length) are discovered through test 2.

Faulty manufacture or damage is revealed by the shift test, 3, which has four distinct steps, all easily followed.

If the balance does not meet test 4, for rider and graduated beam, either one or the other, or both, should be factory corrected.

Occasional ehecking is not sufficient. Periodic eheeks should be made to insure accurate compounding.

A chart for recording findings of tests is provided. Copies, on heavy cardboard, may be ordered from the AMERICAN PHARMA-CEUTICAL ASSOCIATION at no charge.

the rest point. If it is different from the zero rest point, add a 10-mg. weight to the lighter side. This should bring the rest point back to its original position or farther. Repeat this test, using the 1-Gm. test weight and moving the rider to the 1-Gm. division on the beam. If the rest point is different it should be brought back at least to the zero rest point position by addition of 10 mg. to the lighter pan. If the balance does not meet this test, the weighbeam graduations or the rider must be corrected.

(Continued on Page 310)

# CURRENT CLINICAL STATUS

by R. J. Meyer, M.D.\*

Few medical discoveries have been subjected to such intense clinical research as has ACTH. In this brief article, Dr. Meyer, reviews the background and outlines its clinical standing, as of May 1 of this year.

THE dramatic results that have been observed in the clinical use of ACTH were in a large measure not anticipated during the early research period, and after its first commercial preparation under the name of ACTHAR.† However, the rapidly growing series of favorable clinical results give increasing evidence of the broad therapeutic usefulness of this new hormonal agent.

The many and varied reports that have appeared in the lay press have led to some confusion and a fair number of popular misconceptions concerning the use of ACTH. Some of these reports have stressed the danger of using this some have indicated that unwanted "side effects" occur when it is used. Usually the entire story and explanation that go with it have been incomplete or totally lacking. There is no truth to the ideas that ACTH is dangerous. will grow beards, cure baldness, rejuvenate the male population or make freaks out of persons under treatment. In a recent survey conducted by The Armour Laboratories all the investigators who were questioned indicated that ACTH therapy was perfectly safe when adequately supervised and administered under the recommended dosage schedules. Furthermore, all of the "side effects" which were seen only rarely during treatment, disappeared entirely shortly after treatment was discontinued or dosage was decreased.

The vast and ever-growing series of reports in the medical literature lend considerable credence to the safety of ACTH and it seems quite in order to conclude that it is a safe drug when used properly.

# ORIGIN AND PHARMACOLOGY OF ACTH

ACTH is prepared from the anterior pituitary glands of domestic food animals by a process of extraction under conditions of extreme cold. The resulting product is a white lyophilized powder which is readily soluble in distilled water or saline and which is stable indefinitely in the dry powder form. When put into solution, its potency is retained for at least 5-7 days when kept under refrigeration. ACTH is essentially protein in nature with a molecular weight around 20,000. It is for all practical purposes biologically "pure" and is the first pituitary principle to be isolated in its "pure" form. The present commercial preparations are effective only by the subcutaneous, intramuscular or intravenous routes and have little or no effect when used topically or orally.

It is rapidly absorbed and quickly metabolized in the body, leading to prompt therapeutic effectiveness, so desirable in many acute conditions. It is completely metabolized within 4–12 hours so that there is no danger of cumulative effects. There is little or no pain on injection but if an occasional patient complains of pain this is easily offset by the use of 1% procaine in the diluent.

# FUNDAMENTAL CONSIDERATIONS

Adequate adrenal cortical function has been demonstrated by Dr. Hans Selve to be essential in allowing the body to withstand and overcome a wide variety of stress situations, such as injury or fright. The use of ACTH, the specific physiologic stimulant of the adrenal cortex, enhances the activity of the adrenal cortex and stimulates release of the entire spectrum of adrenal cortical hormones into the blood stream. These adrenal cortical hormones exert specific effects on the body tissues and cells which allow the body to withstand and combat the effects of Thus, ACTH stimulation of the adrenal stress. cortex allows the cells of the body to function in a relatively normal physiologic manner in many pathologic states. Its therapeutic efficacy and clinical safety arises from the fact that ACTH

<sup>\*</sup> Assistant Director, The Armour Lahoratories, Chicago, Illinois † The Armour Lahoratories brand of Adrenocorticotropic Hormong (ACTH).



stimulates secretion of several types of adrenal cortical hormones, all of which are of particular importance in the face of stress situations.

As is true with insulin or thyroid, ACTH can profoundly alter many physiologic and pathologic processes when used in excessive doses, overdosage is, therefore, to be avoided. The socalled side actions from overdosage, however, are not toxic side-actions such as those resulting from overdosage of digitalis, gold or sulfonamides. Instead, they reflect an exaggerated physiologic activity of the adrenal gland. Their appearance is gradual and permits ample opportunity for dosage adjustments to prevent progression. In all cases, the manifestations of overdosage are reversible, and completely disappear as the dosage is decreased or therapy is discontinued In consequence, so-called side-actions pose no serious problem to the informed physician.

Maintenance therapy (50 mg. or less per day) apparently can be continued indefinitely. Rest periods are unnecessary since ACTH provides stimulant therapy and maintains the physiologic integrity of the adrenals, in contrast to adrenal involution occurring under substitution therapy with single adrenal cortical steroids.

Of prime importance is the necessity for continuous medical supervision during treatment, since ACTH is a potent hormonal agent capable of producing many changes in the body tissues. The evaluation of all these changes must be made and followed by a physician.

# THERAPEUTIC CONSIDERATIONS

The physician who treats a diabetic with insulin or a myxedematous patient with thyroid knows that he does not cure the disease. What he has achieved, instead, is control of the disease. Similarly, many intractable and resistant diseases now can be controlled with ACTH. Rheumatoid arthritis, chronic intractable bronchial asthma and ulcerative colitis belong to this group of diseases in which satisfactory remission can be maintained by the continued administration of ACTH. Some patients afflicted with one of these diseases, however, may remain in remission for substantial periods of time without further administration of this new agent.

ACTH therapy is capable of reversing selflimited diseases such as acute rheumatic fever, certain acute hypersensitivities, and acute eye conditions. In such instances treatment may be necessary for a short period only.

(Continued on next page)

# JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION

# Clinical Status of ACTH

• • •.• • • • • • • from page 297

# Limits to Efficacy

As with any other drug, there are limitations to the efficacy of ACTH therapy. The severity of the disease may not be an obstacle, but where irreversible damage is present, such permanent damage cannot be expected to resolve, and in this sense is a limiting factor in efficacy. Destroyed or ankylosed joints will not resume their normal function. Likewise, the shrunken fibrotic heart valve from rheumatic heart disease will not unfold again. Excessive collagen deposits cannot be expected to disappear, and an emphysema associated with excessive collagen deposition in the lung cannot be expected to improve materially. On the other hand, the early use of ACTH will greatly increase the probability of successful

# Table I

ACTH is of Proven Value in

Rheumatoid Arthritis
Rheumatoid Spondylitis
Stills Disease
Acute Rheumatic Fever
Acute Lupus Erythematosus
Bronchial Asthma

Severe Hay Fever Drug Sensitivities

Contact Dermatitis

Urticaria

Acquired Hemolytic Jaundice

Acute Psoriasis

**Exfoliative Dermatitis** 

Severe Pemphigus

Nephrosis

**Acute Gouty Arthritis** 

Congenital Idiopathic Hypoglycemia

**Ulcerative Colitis** 

Acute Alcoholism and Delirium Tremens therapy in many diseases, and will act to prevent or postpone the development of chronic or irreversible tissue damage with concomitant loss of function.

In approaching the treatment of specific disease states, continued investigation has revealed certain basic principles to be followed in order to insure success with ACTH.

# Treatment Must Be Adequate

This implies that the initial dosage and the initial period of treatment should be of sufficient magnitude to insure therapeutic response. In general, 15–25 mg. of ACTH given instramuscularly every six hours over periods varying from one to eight weeks will produce an adequate and complete response in most disease states. As soon as a complete remission is obtained, dosage should be tapered gradually to either maintenance or discontinuance.

The various physiologic effects which ACTH is known to produce should be fully appreciated by the supervising physician and the recognition and control of effects of too low a dose or overdosage should be uppermost in his clinical appraisal.

## CONTRAINDICATIONS

It is likewise extremely important to realize that certain existing diseases or coexisting diseases may actually contraindicate the use of ACTH, since its physiologic action may lead to detrimental effects in certain of these conditions.

The most important of these conditions in which ACTH should not be used because of its physiologic effects are: chronic glomerulon-ephritis, psychosis or psychotic personalities, active peptic ulcer, congestive heart failure not due to rheumatic myocarditis, severe hypertention, and active or recently healed tuberculosis.

# SPECIFIC DISEASES RESPONDING TO ACTH THERAPY

ACTH has been employed in the treatment of many varied clinical diseases and the medical literature concerning its effects is voluminous. However, it is fair to say that many questions remain to be answered and a great deal of research directed at determining the final answers is currently being accomplished.

ACTH is of proved value in quite a few disease states (Table I) while in other conditions (Table II), the final value of ACTH remains to be determined.

# Rheumatoid Arthritis and Variants

Many thousands of patients with rheumatoid arthritis and its variants have now been treated with ACTH with continuing good results. The work of Doctors Hench, Markson, Freyberg Holbrook, Bauer and Thorn has been notable in this regard.

On the basis of current medical evidence, good results can be expected if 20–25 mg. of ACTH is given every six hours for at least seven days or until a remission has taken place. The lowest dosage of ACTH that will sustain the remission is arrived at by gradual tapering of the dosage over a period of several weeks. Some patients will have a sustained remission without further ACTH therapy once the initial remission is induced with ACTH. The average patient will usually show recurrence of symptoms shortly after ACTH is stopped and for this reason maintenance therapy is necessary.

# Acute Rheumatic Fever

Most encouraging are recent reports by Doctors Wilson, McEwen, Massell and others in which the authors feel that chronic valvular damage to the heart may be prevented if treatment with ACTH is begun as soon as the diagnosis is established in children with acute rheumatic fever. A treatment course of 10-30 days of ACTH is necessary. The principle of adequate dosage (15-25 mg. every 6 hours) is extremely important especially in this instance, where structural damage to the heart may be prevented.

# Bronchial Asthma

Doctors Howard, Harvey, Bordley, Rose, Randolph, Elkinton and others have recently reported dramatic and rapid improvement in patients with bronchial asthma, most particularly in status asthmaticus. In a number of instances ACTH has seemed to be life-saving.

In general, ACTH has been given in dosages of 25 mg. every six hours for periods of at least 2-4 days and the dose has been tapered to discontinuance over periods of 10-12 days. Most remarkable has been the sustained relief that has been observed following ACTH withdrawal; some patients remaining completely symptom-free for periods of 3-4 months.

### OTHER DISEASE STATES

Space does not permit a discussion of all the diseases in which ACTH is of proved value (Table I). Suffice it to say that ACTH therapy has been equally dramatic in all the conditions listed

There is a large group of diseases and conditions

in which the final value of ACTH has yet to be determined. Many of these conditions (Table II) show considerable promise, and it seems quite likely that ACTH will be of definite value in the treatment of shock, burns and other traumatic conditions which are of such timely importance

Current research effort remains extremely vast and many of the unanswered questions will no doubt be answered in the not too distant future. One thing is certain; we are in the midst of a new era in medicine made possible by the introduction of this amazing new hormonal agent into clinical medicine.

All our ideas of disease are undergoing a major change in the light of this discovery. There is little doubt that we stand on the threshold of solving many of the fundamental problems in disease states using ACTH as a very solid stepping-stone.

# Table II

ACTH May Be of Definite Value in

Severe Burns

Skin Grafting—Autogenous or Heterogenous

Multiple Sclerosis

Erythroblastosis Foetalis

Leukemias and Lymphomatous Diseases

Pulmonary Beryllosis

Panhypopituitarism

Postoperative or Traumatic Shock

Lower Nephron Nephrosis

Radiation Sickness

**Keloid Formation** 

Postoperative Adhesions (Prevention of)

Dermatomyositis, Periarteritis Nodosa and Seleroderma

Toxins and Venoms (Spider and Snake Bite, etc.)

Anemias and Purpuras

Infectious Hepatitis

# NATIONAL DEFENSE A

# CIVIL DEFENSE

STATE and municipal governments will have to bear most of the major burden of civil defense unless the Congress restores to the Federal Civil Defense Administration the funds removed from its 1951 appropriation request in the House of Representatives, Federal Civil Defense Administrator Millard Caldwell told the Governors' Conference, held recently in Columbus, Ohio.

"The action of the House undoubtedly is due in a large part to the general public apathy to civil defense," Mr. Caldwell said. "The most vicious menace in America today is the shocking apathy of the American people to their danger from an enemy. In the interest of our people and the free world, we cannot surrender to this apathy, despite what is done or is not done by the Congress."

Here is what Congress has done:

The House Appropriations Committee denied funds for Fire Fighting, Wardens, Engineering, Transportation, Rescue, Reserve Supply and Operations, Welfare, Research and Development, and Medical Services.

A total of \$75,638,000 had been requested for medical services. This included \$13,850,000 for procurement of vaccines for pre-disaster immunization against biological warfare, and first aid station supplies to be stored at local points within the selected critical target areas.

The balance, \$61,761,000, was requested for Federal stockpiling; radiological monitoring equipment valued at \$1,668,700 was eliminated in its entirety; \$32,000,000 was for the purpose of procuring medical and surgical equipment and supplies for the treatment of casualties resulting from an attack.

The rest was to be used to purchase drugs, blankets, cots, vaccines, blood plasma, and blood substitutes.

To the surprise of the FCDA, the House voted \$100,000,000 as an emergency fund, but which was not to become available until after an emergency was created. Caldwell called this "an idle gesture."

In all, the House cut the \$403,000,000 dollar budget request to \$186,750,000, including the \$100,000,000 emergency fund.

The National Conference of State Civil Defense Directors, gathered in Washington to attend the first course offered by the Federal Civil

Defense Staff College the week of April 28, adopted a resolution addressed to the Senate Appropriations Committee.

The resolution stated that members of the conference placed "the highest priority, both from a practical and morale standpoint, on prompt and effective treatment of the injured."

This was necessary, the resolution said, because "official statements by authoritative members of the medical supply industry and by qualified officials of the Federal Government have established the fact that existing reserves of medical supplies are entirely inadequate to meet even the minimum emergency requirements."

The next day, the Senate committee decided to recommend a total of \$84,000,000, which, while not adequate, nevertheless will make it possible for the FCDA to have a program.

Of this total, \$40,000,000 will be provided for the stockpiling of medical and surgical supplies and equipment. The rest will go to the other Civil Defense services cut short of funds or left entirely out of funds by the action of the House committee.

To date, no funds have been appropriated for 1951 for civil defense. The differences between the House and Senate have not been reconciled and this must be done before the funds can be voted and made available.

## NATIONAL CIVIL DEFENSE MEETING

In order to combat the apathy of the public toward the civil defense program, Federal Civil Defense Administrator Millard Caldwell called a meeting on May 7 and 8 in Washington, D. C. Representatives of more than 250 professional, scientific, trade, and business organizations, including the American Pharmaceutical Association, were invited. In addition, regional Civil Defense Directors, about fifteen governors, state civil defense and city civil defense directors attended. In all, about 1,000 conferees gathered for the two-day session.

On May 7, forums were held on Civil Defense Organization and Volunteer Technical Services. Secretary of Defense, General George C. Marshall, addressed a luncheon, followed by forums on Health and Welfare Services and Public Affairs. That evening, President Truman addressed the conference at a banquet.

On Tuesday, forums were held on Shelters,

# SECURITY

Warnings and Communications, Military Liaison and Training and Education.

The meeting closed with a luncheon address by Governor Earl Warren of California.

# HERSHEY TO CONTINUE SCIENCE ADVISERS ON DRAFT PROBLEMS

Director of Selective Service, Major General Lewis B. Hershey, has given permanent appointments to members of his six Scientific Advisory Committees.

These are the committees, with Dr. M. H. Trytten of the National Research Council as general chairman, which submitted a special report on which the Selective Service program for deferment or postponement of service of college students will be based.

The committees cover the following fields: agricultural and biological sciences, engineering sciences, healing arts, humanities, physical sciences, and social sciences.

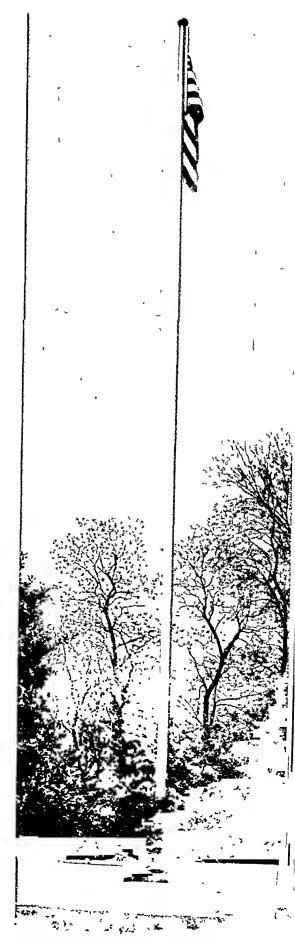
Members of the committee on the healing arts are: Dr. Stockton Kimball, University of Buffalo, Buffalo, N. Y.; Dr. Donald G. Anderson, American Medical Association, Chicago, Ill.; Dr. Gerald D. Timmons, Temple University, Philadelphia, Pa.; Dr. Walter R. Krill, Ohio State University College of Veterincry Medicine; Dr. R. MacFarlane Tilley, Brooklyn, N. Y., and Dr. Carel Koch, Minneapolis, Minn

Selective Service College Qualification Test.— The deadline for the submission of applications for the Selective Service College Qualification Test requires that such applications must be postmarked not later than midnight May 15.

The three testing dates are May 26, June 16 and June 30, all these dates falling on Saturdays. A fourth examination will be held Thursday, July 12, for those students whose religious beliefs are such that they could not in conscience take the examination on a Saturday.

Students are urged to take the examination, but it must also be borne in mind that failure to pass the test does not necessarily make the student immediately draft eligible. If the student's comparative standing in his class is in the bracket which entitles him to deferment or postponement, then results of the examination will be disregarded.

(Continued on Page 312)





FROM THE SECRETARY'S DIARY FOR APRIL

This morning at the Soreno Hotel in St. Petersburg, where the hospital pharmacists of the southeastern states are gathered to meet with the hospital administrators and other personnel at the Southeastern Hospital Conference In the afternoon addressing the convention and telling the hospital administrators particularly how hospital pharmacists are organized and what they have done to advance standards of hospital pharmacy practice.

This morning, following a hospital pharmacist breakfast, at which E. R. Squibb and Sons were hosts, addressing the Southeastern Society of Hospital Pharmacists and conducting a panel discussion covering all important problems of interest to hospital pharmacists. Later at luncheon with the same group, who were guests of Wyeth Incorporated. A quick tour of St. Petersburg before entraining for Washington, and seeing, among other things, the splendid museum which Mrs. Franklin M. Apple, widow of a former staunch A. Ph. A. member, has gathered together for the citizens of this pleasant Florida city.

Now on to New York for the annual meeting and dinner of the National Health Council at which President Detlev Bronk of Johns Hopkins University spoke feelingly on the necessity of conserving scientific manpower.

To-day in Newark, N. J., where were gathered 231 members of Student Branches from the Colleges of Pharmacy in New York City, Philadelphia, New Haven and Pittsburgh, for a district meeting. These young men and women are to be congratulated for the splendid contribution they are making to the advancement of student thinking on current problems of pharmacy. Louis Kazin, the faculty adviser, and the officers of the Rutgers University Student Branch, which was the host, deserve high praise for the smoothness with which the details of the meeting were arranged.

Today came President Hugo Schaefer of the American Association of Colleges of Pharmacy, and Executive Committee Chairman Joseph Burt of the same organization, to

meet at the Pentagon with General Kendrick of the Air Force to discuss ways and means of supplying pharmacists without lowering standards of education.

Yesterday a quick trip to Baltimore to address the University of Maryland pharmacy students. Early to-day to Philadelphia to address the Student Assembly at the Philadelphia College of Pharmacy. Especially glad to find President Griffith back from the hospital looking fit and presiding over the ceremonies with his usual good humor. In the afternoon to the Temple University's School of Pharmacy 50th anniversary celebration, and in the evening bringing greetings to the assembled alumni and friends of that Institution at the anniversary dinner.

The past few days at routine tasks.

Among visitors yesterday were Carl
Willingham, Secretary of the National

Association of Chain Drug Stores, who is interested
in ways and means of advancing professional pharmacy.

All day at the Statler Hotel in Detroit working on material for the JOURNAL, and in the evening to Ann Arbor where representatives of Student Branches in 11 colleges were gathered for the annual meeting of representatives in District No. 4, and they showed keen interest in the activities at headquarters. After a pleasant visit with Don Francke, off to Chicago and Little Rock.

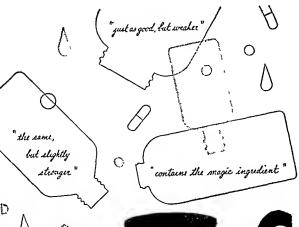
To-day addressing the Arkansas Pharmaceutical Association and expounding the importance of retaining the professional prerogatives of pharmacists in spite of federal food and drug law interpretations. Also enjoying the annual banquet presided over by Walter Cousins.

Back to Detroit for the A. Ph. A. District Meeting, joining Hans Hansen on the train. Listening to radio broadcast of General MacArthur's speech in the lounge car where were gathered most of the pullman passengers, and the eloquence of the General was such as to cause spontaneous applause even on the train. Now to the meeting of the Michigan Hospital Pharmacists Association, in Detroit, at which Mr. Hansen received the annual Whitney Award.

Today a most successful District Mccting at Detroit with members of the Association here from 7 states. President Gregg presided ably and Dean Muldoon gave a fine inspirational luncheon address.

The intervening days concerned largely with preparations for the Council Meeting held on April 26 and 27 at the Statler Hotel in Washington and described elsewhere. And now getting ready for the hearings on the Durham bill, which begin May 1.

0



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When Cellothyl was offered as the first significant advance in bulk therapy in years, "variations" were expected as usual, but not the avalanche which has recently appeared. At the latest count more than 40 had reached the market - an impressive tribute to the efficacy and professional acceptance of this new approach to constipation correction.

The high degree of acceptance accorded Cellothyl reflects-

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- 3. the steady and increasingly heavy promotional campaign which has been carried on for over three years, to the medical profession and drug trade exclusively.

Cellothyl was introduced over 3 years ago-the first bulk laxative in tablet form

> ▶ has been accepted by the Council on Pharmacy and Chemistry of the American Medical Association

Cellothyl is the ONLY brand of methylcellulose

- > studied at the Mayo Clinic for treatment of constipation1
- found to correct both acute and chronic constipation in 92% of cases2
- > available in both tablet and granule form

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25 gram	.54	.79
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1. Gastroenteralagy 13:275 1949 2. N.Y. State J. Med. 48:1822, 1948

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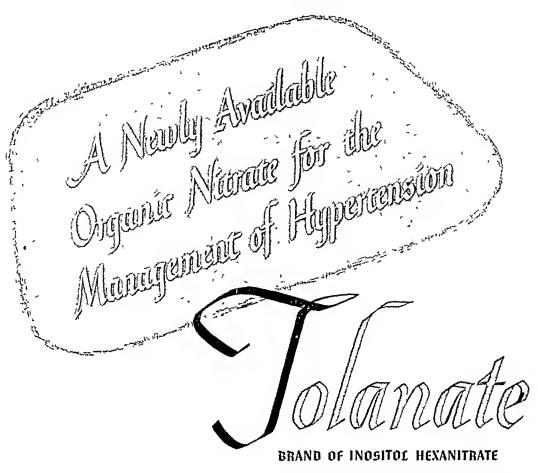
# COURT JUDGMENTS-MARCH, 1951

# ADULTERATED AND MISBRANDED DRUGS AND DEVICES

Locality	Product	Violation and Sentence
Orange, N. J.	Estinyl tablets; Hormotone "T" tablets; Oreton-M tablets; Neo-Hombreol tablets; Metandren linguets	Misbranded—labeling failed to bear adequate directions for use and adequate warnings against excess dosage and duration of administration.  Sentence: Firm and 1 defendant fined \$750 each

# OVER-THE-COUNTER SALES-PRESCRIPTION DRUGS

Locality	Product	Violation and Sentence
Denver, Colo.	Barbiturates	Refilled prescriptions without authorizations Sentence: 1 defendant fined \$500 and placed on probation for 1 year
Maysville, Ky.	Benzadrine; Methyltestosterone	Sold without physicians' prescriptions. Sentence. 1 defendant fined \$300
Las Vegas, Nev.	Barbiturates; Desovyn	Sold without physicians' prescriptions. Sentence 1 defendant fined \$2500, 1 year suspended sentence, placed on probation for 1 year
Bristol, Tenn.	Barbiturates	Sold without physicians' prescriptions. Sentence: Firm fined \$800
Houston, Tex.	Barbiturates; Amphetamine	Sold without physicians' prescriptions. Sentence. I defendant fined \$500—to be paid within 30 days, 4 year suspended sentence, placed on probation for 5 years with supervision
Poplar Bluff, Mo.	Thyroid; Sulfonamides	Sold without physicians' prescriptions Scattered: 1 defendant fined \$200
Poplar Bluff, Mo.	Barbiturates; Sulfonamides	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$200
Poplar Bluff, Mo.	Thyroid; Barbiturates; Diethyl- stilbestrol; Sulfonamides	Sold without physicians' prescriptions. Sentence: Firm fined \$700
Las Vegas, Nev.	Barbiturates; Thyroid; Sulfa drugs	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$1000, 1 year suspended sen- tence, placed on probation for 1 year
Las Vegas, Nev.	Barbiturates; Sulfa Drugs; Desoxyn	Sold without physicians' prescriptions. Scntence: 1 defendant fined \$2500, 1 year suspended jail sentence, placed on probation for 1 year



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**639** 

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THE ASSOCIATION EXTENOS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP OURING THE MONTH PRECEOING PREPARATION OF THIS ISSUE.

ALABAMA Barry, Poul P., Mootgomery Clem, Howord D., Langdale

ARKANSAS Demere, Shirley P., Ozark

## CALIFORNIA

Ahramovitz, Horvey M , San Fraocisco Ajari, Jun Ted. Vallejo Joekson, Roy D., San Franeisco Kerr, William R., Los Aogeles Moncur, Hugh D., Jr., San Francisco

# COLORADO

Hampton, Leroy, Denver

DISTRICT OF COLUMBIA Ames, Reede M., Washington, D. C.
Reader, Samuel, Washington, D. C.

# FLORIDA

Jollivette, Cyrus M., Miami Levy, Sol J., Miami Magness, Charles W., Miami Miller, Clarence E., Winter Miller, Clarence E., Winter Gorden Szekely, Sarah F., Gaiocsville

### GEORGIA

Bocon, Richard W., Atlanta

### ILLINOIS

Bakkers, Elves D., Chicago Jones, Harold V., Cowdeo Moss, Chester D., Muodelein Plache, Leooard R., Aurora Stutsman, Harold O., Aledo

# INDIANA

Fortuce, William B., Indiaoapolis

Riddiek. John A., Terre Haute

KANSAS Childs, Mac, El Dorado

# MARYLAND

Ellin, Robert I., Baltimore

MASSACHUSETTS Denmark, Herman, Dorches-

ter

# MICHIGAN

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MINNESOTA Shom, Sidoey I., South St.

### MISSOURI

Coroclius, Walter J., Kansas City Parris, Mrs. Ted, Forsyth

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### OKLAHOMA

MeBride, Bervis Oklahoma City В., Jr.,

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# SOUTH CAROLINA Willinms, L. S., Laocaster

### TENNESSEE

Dudley, H. Clifford, Memphis

### TEXAS

Borth, Fred, Austin Hughes, Patrick E., Soo Antonio Shottuck, Harold W., Pales-

# VIRGINIA

Jeoologs, Robert N., Lyochburg

### WISCONSIN

Bisek, Laura, Milwaukee Eskin, Arnold, Milwaukee Knouer, Martin H., Appleton Koopf, Herman W., Barroo Miller, Irvin H., Gillett Pedrero, Edward, Jr., Madi-Perkins, Paul E., Greeo Bay Sutton, Lee, Milwaukee Tunak, Arthur E., Milwaukee

## **FOREIGN**

Poulene, Pierre, Paris, France Takahashi, Tadashi, Osaka Japan



# Deceased Members

Ootko, Harry G., Keao-aha, Wis. Porter, J. Edward, Syra-cuse, N. Y.

A Career in Pharmacy and the Allied Sciences

Philadelphia College of Pharmacy and Science.



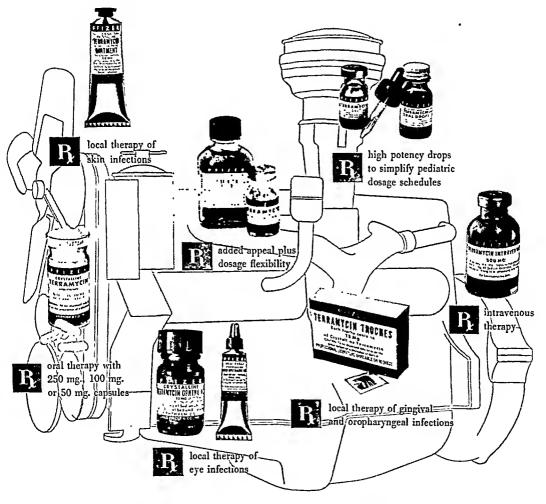
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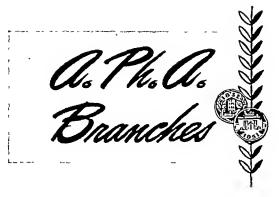
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State University of Iowa Branch held a regular meeting on April 16. Mcmbcrs are now planning a Spring Pharmacy picnic scheduled for May 23.

Paul E. Tufo, Chicago, has been elected president of the University of Illinois Branch. Other newly-elected officers are Robert L. Reiser, Petersburg, vice-president; Wanda E. Jagodzinski, Lyons, secretary; and Edmund W. Schmidt, Chicago, treasurer.

#### STUDENT BRANCHES

Consin, Missouri, Michigan, Olio, Illinois, Indiana, and Kentucky—were represented at the District No. 4 Student Branch 1951 Convention held April 15-17 at the University of Michigan.

Newly elected officers of the Detroit Institute of Technology Branch are: Joseph J. McDonnell, president; William R. Cooper, vice-president; Joan L. Killby, secretary; Richard H. Dittus, asst. secretary; and Russell F. Spencer, treasurer.

Members of the University of Wisconsin Branch held a regular business meeting on March 23. Mr. William Apple, guest speaker, lectured on the subject, "I Bought a Drugstore Today." A question and answer period followed the speech.

An emulsion contest was an interesting phase of the March 8 University of Buffalo Branch meeting. Henry Panassi won in the individual class and the Junior class came in first in class competition.

"Oregon State College Branch elected officers at the March 7 meeting. New officers are: Neil Kennedy, president; Phillip Hall, vice-president; Alvis Miller, secretary; and Harold McCallister, treasurer.

University of Mississippi Branch officers who will serve during the new term are Fred E. Bennet, Jr., president; Gerald Glass, vice-president; and Patricia C. McNcase, secretary.

Students recently elected to office in the Ohio Northern University Branch are: Charles D. Schaeffer, president; John A. Best, vice-president; Dorothy Lilak, secretary; and Frederick C. Minardi, treasurer.

"Wings Over Mexico and Guatamala" was the title of a sound film shown to members of the Kansas University Branch at the February 27 meeting.

#### LOCAL BRANCHES

CIVIL Defense took the spotlight at the April 9 meeting of the New York Branch when Dr. Leonard J. Piccoli, professor of public health, Fordham University College of Pharmacy, and Dr. Joseph Berg, medical director, civil defense aid station, Fordham University College of Pharmacy, spoke on this pertinent subject. Titles of their respective talks were: "The Pharmacist's Role in the Organization and Administration of the Medical Aid Stations"; and "Demonstration on the Technique for Giving Hypodermic Injections And Doing Skin Suturing by the Pharmacist in the Event of an Emergency."

Certificates were issued to those members who had successfully completed the special civil defense training.

THE Fourth Annual Spring Conference, sponsored by the Pittsburgh Branch, was held April 4, at Mellon Institute. Papers presented at the meeting were: "Prescription Pricing," by Seymour B. Jeffries, professor of business administration, Brooklyn College of Pharmacy; "Success Begins at the Top," by Robert E. Wallace, Manager, Pittsburgh District, Eli Lilly & Co.; and "Protecting the Net Profit," by Dr. Stephen Wilson, vicedean of the Pittsburgh School of Pharmacy. At the Annual Banquet, held the same evening, Don E. Francke, president-elect of the American Pharmaceutical Association, spoke on "Professional Pharmacy." Mr. Francke discussed the need for higher pharmaccutical standards, including cthical and cducational, to distinguish better between Pharmacy, the profession, and Pharmacy, the trade.

The Philadelphia Branch sponsored its annual Past-Presidents' Dinner-Meeting on April 12 at which all former presidents of the Branch were honored guests. Chief speaker at this meeting was Colonel Othmar Frank Goriup, Chief, Medical Service Corps, Office of the Surgeon General, Dept. of the Arnry, who spoke on "Background, Organization, and Purpose of the Army Medical Service Corps."

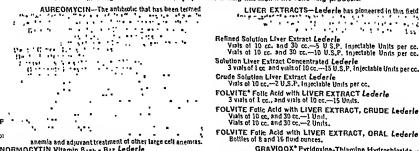
Building good will-

THERE IS NO SUBSTITUTE for the personal touch in human relations. So-called detailing of physicians is one of the most expensive promotional methods known to the drug industry, yet it is indispensable. These representatives of Lederle are literally ambassadors of good will, who interpret our organization to the physician and the pharmacist and, conversely, transmit to us the sentiments of our professional clients. The astute pharmacist can utilize these men for the very practical purpose of learning what physicians are most concerned about professionally and therapeutically. The good will which the community and the profession bear toward the pharmacist is an attribute which needs constant attention lest it become a wasting asset. Our representatives aid in this process.

The Lederle organization is continuously improving its detail force and expanding its professional service activities, which back up the representatives in the field. Activities of this kind build a healthy situation with respect to mutual confidence and good will, from which the pharmacist

cannot fail to benefit. LEDERLE LABORATORIES DIVISION AMERICAN Gyanamid COMPANY Under the Population desired 30 ROCKEFELLER PLAZA . NEW YORK 20, N.Y. LEDERLE LABORATORIES DIVISION American Gyanamid Company CREMINE PLACE - NEW YORK 20. H T.

Lederle will bring to the attention of physicians during this month the following products:



Sollies of 8 and 16 none ounces.

GRAVIOOX\* Pyridoxine-Thiamine Hydrochloride—
for the alleviation, in conjunction with other means, of excessive
vamiling in pregnancy. Solution: Vials of 10 cc. Tablets: Bottles of 50 and 250.

anemia and adjuvant treatment of other large cell anemias.

NORMOCYTIN Vitamin 8:25 - 8:2 Lederle
Parenteral: 1, 5, and 25 ampuls of 1 cc., and visits of 10 cc.,
30 micrograms per c.

Tablets: Bottles of 100, 30 micrograms each tablet.

NORMOCYTIN-FOLVITE\* Vitamin 8:15 - 8:2 and Folic Acid
Tablets: Lederle Bottles of 100
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with Stomach Powder Tablets: Lederle Bottles of 100.

PERNATAL CAPSULES-A multivitamin preparation
containing calcium, phosphorus, iron and manganese, for
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Bottles of 100 and 1,000. ARTANE\* Trihayyohanidyl-T loutnals an Elixie: Bottle.

Eligie: Bottles of the hand donces.
Tableta: Bottles of 100 and 1,000, 2 mg, or 5 mg, each tablet.
\*\*Trade Mark Reg. U.S. Pat. Off. \*Reg. U.S. Pat. Off. 

# When to Test the Prescription Balance

Oscar Oldberg wrote in 1913, "The sensitiveness and accuracy of (prescription) balances cannot be too strongly dwelt upon and all balances should be verified not only upon purchase but subsequently from time to time whether frequently or rarely used." He also wrote: "Do not overload the balance, keep it in a fixed place, keep the pans clean and reverse them from time to time." This is still sound advice.

If your balance meets the above requirements, set up a regular checking schedule. We have periodic checks to lengthen the lives of our automobiles. We should make periodic balance checks to protect the lives of our patrons. A thorough test every four to six months would be adequate under ordinary working conditions. We suggest that this article be kept, or the entire issue could be filed in a convenient place for ready reference. A chart similar to the one in Fig. 3 could be used to record the time and results of tests. Copies of this chart on heavy cardboard will be furnished by the AMERICAN PHARMACEUTICAL ASSOCIATION on request. (See coupon at right.)

American Pharmaceutical Association	
2215 Constitution Avenue, N.W.	
Washington 7, D.C.	
•	
Dear Sirs:	
Please send me my copy of the Prescrip Balance Inspection Chart.	ption
Name	
Name of Pharmacy	
No. & Street	,
CityZoneState	
I am a member of the A. PH. A.	
I am not a member of the A. PH. A.	
l am interested in joining the A. PH. A.	

#### PRESCRIPTION BALANCE TEST CHART

DATE OF TEST	RECII No. of rest shifted (check	IBILITY PROCAL divisions point is by 10 mg. if not less 1 div.)	ARM RATIO 10 Mg. should overcome rest point differ- ence. Check if requirement is met.	SHIFT TESTS  20 mg. should overcome rest point difference. Check if requirement is met.		WEIGI TE:	fference. require-	
	No Load	10 Gm. Load		Right Weight Shifted	Left Weight Shifted	Both Weights Shifted	500 mg. Test	1 Gm. Test
·								

Fig. 3. Copies of this Chart, printed on heavy cardboard, may be had by writing to the American Pharmaceutical Association. Use the coupon at upper right when ordering.

#### Straight From Headquarters . . . . . from page 275

The Durham bill is now passing through its third stage and if and when the Committee on Interstate and Foreign Commerce makes its report to the House of Representatives it must be carefully scanned to make sure that pharmacists' prerogatives are not encroached upon unnecessarily, before individual Congressmen are asked to vote for it.

The Council of the American Pharmaceutical Association feels that pharmacists and pharmaceutical associations should carefully study the final proposals before giving their endorsement to this measure.

#### Meeting of the Council

A LL of the 16 members of the Council of the AMERICAN PHARMACEUTICAL Asso-CIATION were in attendance at the two-day session held at the Statler Hotel in Washington on April 26 and 27. Important business dealing with the internal affairs of the ASSOCIATION, as well as action on pending matters affecting the welfare of pharmacy were given close attention.

Plans for the Buffalo Convention to be held the week of August 26 were reviewed and approved, and considerable attention was given also to the plans for the centennial meeting in Philadelphia in 1952.

It was decided to arrange for observance of the hundredth anniversary of the founding of the Association throughout the entire centennial year. During the centennial convention itself, it is planned to set aside one day for celebration of the 100th anniversary. Plans for international aspects of the celebration and the cooperation of affiliated and related organizations in developing various aspects of the centennial program were formulated on a tentative basis.

Considerable attention was given to the report of Chairman Schaefer of the Committee on Legislation, who pointed out that hearings on the Durham bill (H.R. 3298) were scheduled for the following week.

Dr. Schaefer reported that the expected ruling of the Federal Security Administrator on the prescription filling and refilling provisions of the law is still in process. In view of the fact that H.R. 3298 does not satisfy the need for a clear definition of the professional responsibility of pharmacists,

the Council adopted a statement to be filed with the Committee on Interstate and Foreign Commerce, as presented by Chairman Schaefer. Chairman Schaefer pointed out that previous commitments for the week during which the hearings were scheduled made it impossible for him to attend the hearings, and the Secretary was instructed to present the statement adopted by the Council when he appeared before the Committee to give such other testimony as may be required at the time.

The Council voted to ask the Secretary of the National Association of Boards of Pharmacy to take the initiative in calling a preliminary conference of the secretaries of the N.A.B.P., N.A.R.D., and A. Ph. A. to lay plans for the Convention on Pharmacy Legislation proposed in the pharmaceutical survey.

President Gregg reported that he had addressed 14 state pharmaceutical associations, 9 local branches, 6 student branches, 3 metropolitan pharmaceutical associations and one county association since taking office. Reports from the Committees on Finance and Property and Funds dealt with the investments of the Association and its financial condition, which was found to be excellent. With the exception of minor necessary renovations of the building and grounds, the property of the Association was found to be in excellent condition:

The Secretary's report on membership showed a highly satisfactory increase in both active and associate members, and an all-time high for returns from dues.

Improvements in the Practical Pharmacy Edition of the Journal were reported by Mr. Bernard Zerbe, the new Executive Editor, and plans for future editions of the Journal were approved.

Change in the name of the Bulletin of the Committee on National Formulary to "Drug Standards," with a broadening of the field of coverage of the Bulletin was approved. Reports on the National Formulary, and the Scientific Edition of the Journal were made by Dr. Justin L. Powers, and a report on the laboratory was made by Dr. Samuel Goldstein.

Dr. Ward Rice of the Lilly Laboratorics

(Continued on Page 314)

National Defense..... from page 301

Chloroquine

from page 278

#### DR. RICHARD L. MEILING RESIGNS

Dr. Richard L. Meiling, Chairman of the Armed Forces Medical Policy Council, has resigned, effective June 30. He will be succeeded by Dr. W. Randolph Lovelace II, of Albuquerque, N. M.

In his letter of resignation to Secretary of Defense General George C. Marshall, Dr. Meiling said that his two-year leave of absence from Ohio State University College of Medicine, where he is assistant professor of medicine, terminates on that date, and that he felt he must return to his professional, clinical, and academic duties.

Dr. Meiling was an original member of the Armed Forces Medical Advisory Committee in November, 1948, at the invitation of Secretary of Defense James Forrestal. He later became Director of Medical Services, Department of Defense, and more recently Chairman of the Armed Forces Medical Policy Council.

General Marshall, in accepting Dr. Meiling's resignation, said, "you have very ably discharged a difficult role in unification, in developing a coordinated medical program for the Army, Navy, and Air Force without loss of the individual medical service independence necessary to the combat mission of each service."

Dr. Lovelace is Head of the Section on Surgery and a member of the Board of Governors of the Lovelace Clinic. He is also a member of the Board of Trustees of the Lovelace Foundation for Medical Education and Research.

During World War II, Dr. Lovelace served with the Army Air Force, advancing from the rank of Major to that of Colonel, which he now holds in the Air Force Reserve.

Following the war, Dr. Lovelace acted as special consultant to the Air Force, and was appointed a member of the Armed Forces Medical Policy Council when it was established on January 2, 1951.

Dr. Lovelace was born in Springfield, Missouri, in 1907. He received his A.B. Degree from Washington University, St. Louis, Missouri, in 1930; an M.D. at Harvard University in 1934; and an M.S. in Surgery at the University of Minnesota in 1939.

After interning at Bellevue Hospital, New York City, Dr. Lovelace served as a Fellow of the Mayo Foundation, Rochester, Minnesota, and later as chief of a surgical section of the Mayo Clinic.

Dr. Lovelace is a member of the AMA and many other medical associations.

spread the infection in their own communities. Until that time, it was admitted that many physicians had been trained to think of amebiasis as a disease found for the most part in the tropics.

Examinations of Army medical officers in Washington, D. C., who had never been out of the United States revealed 12.7 per cent positive The difficulty of making a positive diagnosis, dependent as it is on painstaking and repeated laboratory examinations, makes it appear likely that the incidence is even greater than the figure states. In New Orleans' Charity Hospital, Dr. A. Ochsner reported finding that 10 per cent of patients with appendicitis had amebic involvement.3 The incidence among the general population of the country was conservatively estimated at from 5 to 10 per cent, while surveys showed that among some institutions and selected occupational groups, an incidence of from 53 to 55.5 per cent was evident, especially among food handlers.

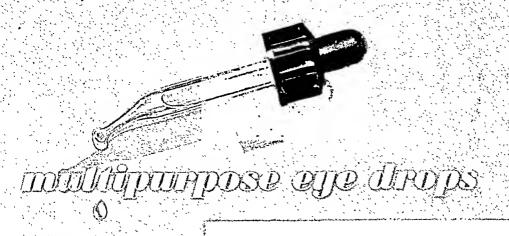
#### Chloroquine and Milibis

Recently, a report on chloroquine by Dr. Harold C. Conn, of the regional office of the Veterans Administration, appeared in *Postgraduate Medicine*. He recommends that in every future case of amebiasis, both chloroquine and milibis, another new preparation for treating the infection, should be administered, because such a combination is effective against *E. Histolytica* when it occurs anywhere in the body. Chloroquine alone will cure 50 per cent of the intestinal cases, Dr. Conn stated.

While chloroquine combats amebiasis when it exists in organs and tissue other than the intestine, such as the liver, milibis has been proved an effective remedy specifically indicated for treatment of the intestinal form of the disease, which is the form usually encountered. Because of the risk of extra-intestinal involvement, however, combination of the two drugs has been recommended.

So, even more significant, perhaps, is the research now being conducted to combine chloroquine with milibis. One tablet then will act to suppress the "world's two most prevalent infectious diseases," malaria and amebiasis, and combat the different forms of amebiasis in the U.S.

<sup>&</sup>lt;sup>2</sup> Ochsner, A., Surgery, Vol. 1, p. 633. <sup>4</sup> Vol. 9, p. 144 (Feb. 1951). See also W. G. Sawitz, Jefferson Medical College (March 1951), description of treatment with Aralen, and reports in Indian Medical Gazette (Feb. 1950): Revista Kuba (May 1950); and So. Med. Journal (April 1950).



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Instillation of SODIUM SULFACETIMIDE SOLUTION 30% following trauma to the cornea or removal of an embedded foreign body can prevent infection in practically every instance.



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#### HANS S. HANSEN RECEIVES HOSPITAL PHARMACY AWARD

Mr. Hans S. Hansen, administrator at Grant Hospital in Chicago, and formerly a pharmacist, was the recipient of the second Harvey A. K. Whitney Lecture Award, given annually by the Michigan Society of Hospital Pharma-



Hans S. Hansen

cists. In presenting the 1951 Award given in honor of the first chairman of the American Society of Hospital Pharmacists, Mr. Hansen was recognized for his leadership in promoting growing understanding of the professional responsibilities of hospital pharmacists by the administrators and other members of the hospital health teams. It was pointed out that he has contributed significantly to advances in hospital pharmacy economics, to the establishment of Pharmacy and Therapeutics Committees in hospitals

throughout the nation, and a number of other practices which have today become standard procedures in hospital pharmacy. Furthermore, he has aided the perpetuation of these principles of practice through his participation as a member of the faculty of several Hospital Pharmacy Institutes and by a number of contributions to hospital literature.

Mr. Hansen has served pharmacy for many years having been a retail pharmacist, a medical representative and a hospital pharmacist, as well as filling several teaching posts. He is a past-president of the American Society of Hospital Pharmacists and has served as a member of the Council of the American Pharmaceutical Association.

This testimonial dinner honoring Mr. Hansen and Mr. Whitney was held at the Henry Ford Hospital in Detroit on April 19. More than 100 members and guests of the Michigan Society of Hospital Pharmacists were present including A. Ph. A.'s President Henry Gregg and Secretary Robert P. Fischelis.

#### STRAIGHT FROM HEADQUARTERS • • • • •

from page 311

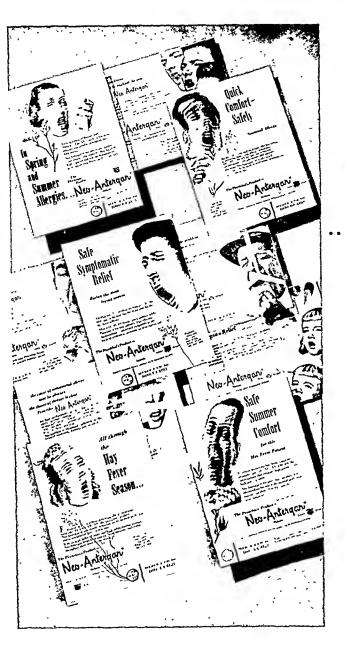
was elected to succeed Dr. F. E. Bibbins as a member of the Committee on National Formulary. Members of the subcommittees of the Committee on National Formulary were also elected.

Opposition to lowering the standards of admission for service as pharmacists in the Veterans Administration was recorded and the Secretary was instructed to submit a statement on behalf of the Association on the pending House bill 302, which seeks to lower these standards. However, it was decided not to oppose provisions for the advancement of pharmacists already in the Veterans Administration who bave Civil Service status and who may not meet the higher requirements for admission to the service.

Chairman Jenkins submitted a revised code of ethics for the consideration of the Council and it was approved for submission to the House of Delegates by a majority vote. Chairman Jenkins also presented a proposal for an annual pharmacy award which is to be announced at the 1951 Convention, and will become effective for the Convention of 1952.

It was decided to participate in the Federal Civil Defense Conference to be held in Washington on May 7 and 8.

The general discussion of reports of officers and committees, covered a wide range of subjects of which the foregoing references are merely highlights. More complete information will be published in later articles. A report of the Committee of Six, which included revision of the by-law along lines covered in the discussions by the members of the Association at the Atlantic City Convention was submitted by Chairman Christensen and will come to the members in detail by mail prior to the Buffalo Convention.



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To maintain a steady flow of prescriptions for Neo-Antergan, timely mailings and journal advertisements are being directed to your physicians throughout the year.

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Nco-Antergan affords prompt symptomatic relief in seasonal and perennial allergies . . . combines high antihistaminic potency with a high index of safety.

#### HOW SUPPLIED

Neo-Antergau is available in coated tablets of 25 and 50 mg. in bottles of 100, 500, and 1,000. Average adult dose is 50 mg., two to four times a day. It will be wise to check your stocks now in anticipation of Summer demands.

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MALEATE

(Brand of Pyrilamine Maleate)
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#### COLLEGES



Appointment of Dr. Roy A. Bowers, dean of the College of Pharmacy at the University of New Mexico, as dean of the Rutgers University College of Pharmacy at Newark was announced April 14.

Dr. Bowers will succeed Dr. Thomas D. Rowe who will leave Rutgers on June 30 to become dean of the pharmacy college at the University of Michigan, his alma mater.

Dr. Bowers, a native of Racine, Wisconsin, is a graduate of the University of Wisconsin where he received his Bachelor of Science degree in 1936 and his doctorate in 1940.

Temple University School of Pharmacy commemorated fifty years of service to the profession of pharmacy on April 11, when its Fiftieth Anniversary was celebrated. The celebration was jointly arranged by the administration and faculty of the school of pharmacy and the Pharmacy Alumni Association.

Philadelphia College of Pharmacy and Science announces that Thursday, May 24, is the date of the Spring Alumni Reunion Dinner for members of the classes of 1901, 1906, 1911, 1916, 1921 1926, 1931, 1936, 1941, and 1946.

At the annual meeting of the members of the College, held March 27, Dr. Ivor Griffith was reelected president, making this his cleventh year as president. All other officers of the College were reclected at the meeting.

The annual Pharmacy Alumni Banquet of Howard College was beld May 14. John Mc-Cartney, 2nd vice-president-elect of the American Pharmaceutical Association, was guest speaker.

Howard A. Gctz was recently elected president of the Hugh C. Muldoon and Pharmacy Alumni Foundation of Duquesne University. Other officers are: Ralph R. Kreuer, vice-president; Joseph R. De Philip, secretary; and George L. McMillin, Jr., treasurer.

Junior and senior class members of the University of New Mexico College of Pharmacy recently visited the Eli Lilly and Company Pharmaceutical house in Indianapolis, Ind.

The senior class of the University of Connecticut College of Pharmacy spent the week of March 31-April 6 touring several pharmaccutical laboratories. Abbott Laboratories, N. Chicago, was the first plant visited. Several days were then spent in examining various pharmaccutical techniques and practice at the Eli Lilly and Company Laboratories in Indianapolis.

#### ASSOCIATIONS



March 25, 26, and 27 marked the dates of the 72nd annual convention of the Kansas Pharmaceutical Association, which opened in Wichita with registration and committee meetings on March 25. As-

sociation officers installed at the convention were: Navy Lt. Norman McCullough, Kingman, president; Robert Lewis, Colby, president-elect for 1952-53; Carl Elking, Topeka, 1st vice-president; Guy Hinor, Ulysses, 2nd vice-president; Mrs. Clara B. Miller, Topeka, executive secretary-manager; and John Schrepel, Pratt, treasurer.

Featured speakers at the convention werc: C. C. Kilker, executive secretary of the Kansas Chamber of Commerce; Rowland Jones, president of the American Retail Federation; Dr. Robert P. Fischelis, secretary and general manager of the American Pharmaceutical Association; and E. Allen Newcomb, executive secretary of the National Wholesale Druggists Association.

The New Jersey Pharmaceutical Association has scheduled its 81st annual convention to be held in Atlantic City, June 18-21. An exhibit and drug show will be held in conjunction with the convention.

#### AT RANDOM



"Build mental health—our children's birtbright, the nation's strength," was the theme of the third annual Mental Health Week, observed May 2-8. Sponsoring organizations were the Na-

tional Association for Mental Health, National Institute of Mental Health, and various State and local mental hygicnic societies.

James Hill, Jr., president of Sterling Drug Inc., and George S. McMillan, vice-president of Bristol-Myers Company, were elected to the Board of Directors of Brand Names Foundation at the sixth annual Brand Names Day, held April 11

(Continued on Page 318)



Protection of women and children has always been the first thought of man in the face of any emergency.

Less glamorous than the sinking ship or devastating fire, but far more common, are the dietary emergencies faced by women during pregnancy and by growing children. To protect women and children against vitamin and mineral deficiencies, Winthrop-Stearns offers CALIRAD Super. Each easy-to-swallow, soft gelatin eapsule contains:



Vitamin A	
Vitamin Bt (Thiamine HCI)	1 mg
Vitamin B2 (riboflavin)	I mg.
Nicolinamide	
Vitamin C (ascorbic acid)	30 mg.
Vilamin D <sub>2</sub> (calciferol)	, 300 U.S.P. units
Menadione (vilamin K analogue)	015 mg.
Dibasic calcium phosphate (anhydrous)	0 568 Gm.
Ferrous gluconate	50 mg.
Potassium iodide	0.1 mg.

Although primarily formulated to meet the needs of pregnant and nursing mothers and growing children, CALIRAD Super is also prescribed for patients before and after surgery, during febrile diseases, general convalescence, for aged individuals without teeth, patients with dysphagia, achlorhydria, anorexia, nausea, vomiting, and alcoholism, and persons on restricted diets.

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BRIEFLY NOTED . . . . . from page 316

in New York City. They will serve one year terms.

Keller Drug Company, Minneapolis, was awarded a plaque as the "Drug Store Brand Name Retailer of the Year" at the Salute to the American Merchant Luncheon of Brand Names Day.

For important contributions toward the understanding of human metabolism, Dr. John M. Buchanan, associate professor of physiological chemistry, University of Pennsylvania, received the \$1000 Eli Lilly & Company Award in Biological Chemistry, April 2, at the Boston session of the American Chemical Society's 119th national meeting. The award, which includes a gold medal, was made at a general assembly of the Society at the Hotel Statler.

Dr. Buchanan presented his award address before the Society's Division of Biological Chemistry on April 3. His topic was "Biosynthesis of the Purines."

#### MANUFACTURERS



Dr. A. William Lescohier, one of the nation's outstanding leaders in the pharmaceutical industry, retired April 3 as president of Parke, Davis & Co., a post he had held since March 1, 1938. He was succeeded

in the 85-year-old company's top post by Harry J. Loynd, who had been vice-president in charge of domestic and Canadian sales and promotion since June, 1945.

Melvin C. Eaton, president of the Norwich Pharmacal Company, has recently been appointed chairman of the newly created Payroll Savings Advisory Committee to the Treasury Department's U. S. Savings Bonds Division for New York.

Dr. Maurice L. Tainter, director of the Sterling-Winthrop Research Institute at Rensselaer, of N. Y., was recently elected to the Academy of

#### I'll fill-<u>and pay for</u>-that first new major specialty prescription

... without touching your stock! Write for full detoils on how the "Phil Furst" Automotic Distribution Plon brings you new mojor Merrell specialties in time to cotch the first prescriptions ... gives you complete protection against "creeping inventory."

The Wm. S. Merrell Compony Cincinnati 15, Ohio

Compony Merrell Merrell New York • CINCINNATI • Toronto

Medical, Physical, and Natural Sciences of Havana as a foreign corresponding member.

The year 1951 marks the 100th hirthday of the Taylor Instrument Companies of Rochester, N. Y. Starting as a tiny partnership for making household thermometers and barometers in 1851, the business of Kendall & Taylor has since become a multi-million dollar corporation.

#### Personnel Changes—

Chas. Pfizer & Co., Inc.-Wilbur A. Lazier, director of chemical research and development, has been elected to the board of directors. Averst. McKenna & Harrison Ltd.-Dr. John B. Jewell was recently appointed medical director of the company, now being in charge of medical services for both the United States and Canada. Parke, Davis & Co.-Dr. F. E. Eads, of Michigan State College, has been named assistant to Dr. Hilton von Rosenberg, manager of the Department of Veterinary Medicine. Nepera Chemical Co., Inc.-George W. Mast, M.D., recently joined the Company as medical director. Riker Laboratories-Dr. H. L. Holmes has been appointed Director of Organic Research. Dr. Holmes' duties will involve basic research on the alkaloidal fractions of Veratrum viride and other plant drugs now under study. Dow Chemical Company-John C. Van Horn has been appointed assistant manager of the technical service and development division.

#### GOVERNMENT



Civil Service positions with annual salaries ranging from \$3825 to \$6400, are now open for pharmaceutical chemists with varied degrees of training and experience. According to information supplied

by the Medical Division, Army Chemical Center, Maryland, personnel with experience and interests in the fields of ointments—both theoretical and applied—are especially needed. Interested persons should address correspondence to Albert A. Kondritzer, Chief, Pharmaceutical Section, Medical Division, Army Chemical Center, Maryland, for further information and application blanks.

Identification cards are now being issued to Spanish-American War veterans who desire to establish their legal right to outpatient treatment for nonservice-connected disabilities. The right of Spanish-American War veterans to such treatment is provided under Public Law 791, 81st Congress. Cards are issued through the V-A Regional Offices to applicants for outpatient treatment when they have established their cligibility.

(Continued on Page 320)

For the Common Anemias.

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DUDDATON

DUDDATEDATE

# The Squibb RUBRA Family

	RUBRAMIN per cc.	RUBRAFOLIN per capsule	RUBRATON per teaspoonful	RUBRAFERATE  per capsule
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VITAMIN B <sub>12</sub>	15, 30 & 50 micrograms	25 micrograms	4.17 micrograms	4.17 micrograms
FOLIC ACID		1.67 mHigrams	0.28 milligrams	0.28 milligrams
IRON			220 milligrams ferric ammonium citrate	130 milligrams ferrous sulfate exsic.
VITAMIN C				50 milligrams
DOSAGE THERAPEUTIC	15 to 30 micrograms dally for a week or more: when neurologic involvement is present, 50 micrograms or more daily.	1 or 2 capsules daily	2 teaspoonfuls t.i.d.	2 capsules t.i.d.
MAINTENANCE	Generally, 30 to 50 micrograms twice a month; when neurologic Involvement is present, 50 micrograms a week.	1 capsule daily	l teaspoonful t.i.d.	1 capsule t.i.d.
SUPPLY	1 cc. ampuls, 15 & 30 micrograms of vitamin B <sub>LL</sub> per ampul. 5 & 10 cc. vials, 30 micrograms per cc. 10 cc. vials 50 micrograms per cc.	Bottles of 100	Pint and galion bottles	Bottles of 100

NOTE: The above are average doses. As with all antianemia preparations, dosages must be adjusted to meet the needs of the individual patient.

Also available: Solution Rubramin Crystalline (Squibb Crystalline Vitamin B<sub>1</sub>: Solution) in 1 cc. ampuls, 15 micrograms of crystalline vitamin B<sub>1</sub>: per ampul, and 10 cc. vials, 30 micrograms of crystalline vitamin B<sub>1</sub>: per cc.

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## MONTHLY DRUG INDEX

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in one of the	follow	ing	ways:			

- 1. Presentation of form letter (FL 10-95); or presentation of a letter from V-A notifying the veteran of a V-A award, or both.
- 2. Presentation of an honorable discharge certificate.
- 3. Verification of applicant's service and C-number assignment through filing Form 10-2827.

Colonel Howard B. Nelson, formerly with the National Security Resources Board as Health Supplies Consultant of the Health Resources Office, has been assigned as Air Force member of the Armed Services Medical Materiél and Specifications Committee. This Committee monitors development projects, adopts new items for standard supply tables and deletes obsolete items from the medical supply catalog.

Colonel Nelson has served as executive officer of the 271st Station Hospital in the China-Burma-India theater. He has also been chief for standardization, specifications and procurement coordination branch of the Office of the Air Force Surgeon General, during which time he headed a five months' medical materiél mission to Africa, Mediterranean and European theater of operations.

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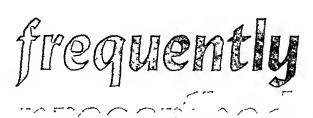
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PUBLISHED by the American Pharmacentical Association Publication Office: 20th and Northampton Streets, Easton, Pa. Editorial office (and address for all correspondence): 2215 Constitution Ave., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journal of the American Pharmaceutical Association, complete (both editions): United States and Pan America \$7; Canada \$7.70; other foreign \$8; members of the American Pharmaceutical Association with dues, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition: United States and Pan America \$4; Canada \$4.35; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Canada \$0.40; other foreign \$0.50. foreign \$0.50.

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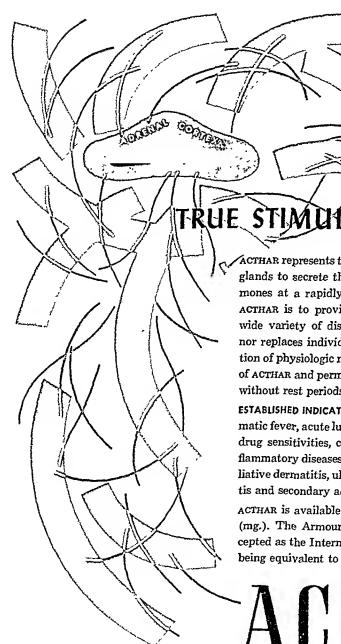
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## PROGRESS IN MEDICINE

On the following pages, this month and every month, the pharmacist will find brief digests of the latest clinical reports in leading medical journals. They have been selected because of their immediate interest to both physician and pharmacist.

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## PROGRESS IN MEDICINE

#### COLD SUSCEPTIBILITY

A twenty-year study of 2667 students at the University of California has served to illuminate the widespread problem of susceptibility to colds, according to Dr. Marshall C. Cheney of Berkeley.

In nearly half of the cases abnormalities of the nose and throat were studied as possibly contributing to the patient's defense capacity. In Dr. Cheney's opinion, adequate treatment of susceptibles should be preceded by complete medical examinations, lab. tests, and X-rays. Highest percentage of success in treatment resulted from a combination of specialists, including nose and throat specialists, allergists, and even lung and dental specialists. By dividing the cases into three divisions, i.e., those students whose medical experience showed good to excellent natural resistance, average natural resistance and poor resistance to a variety of children's diseases during the years 0 to 18, treatment was facilitated.

(Cheney, Marshall C., Ann. Otol., Rhinol. & Laryngol., 60:152, Mar., 1951.)

# NEW TREATMENT FOR RINGWORM OF THE SCALP

Asterol hydrochloride, known under the experimental code designation of Ro2-2453, has shown marked promise as an antifungal compound against ringworm of the scalp in a series of 84 patients, according to a preliminary report.

Drs. Conrad Stritzler, I. M Fishman and Stephen Laurens noted that since previous clinical results from other antifungal preparations had been far less striking, the new product is the "most effective topical agent for the treatment... employed to date." Roughly 70% of the patients treated were cured.

(Stritzler, Conrad, Fishman, Irving M., and Laurens, Stephen, Arch Dermat. and Syph., 63: 606, May, 1951.)

# TRIDIONE SUCCESSFUL AGAINST MINOR EPILEPSY

The occurrence of minor spells of epilepsy has been a common and perplexing problem. It is further complicated, according to Dr. Theodore Stone of the Department of Nervous and Mental Diseases, Northwestern University Medical School, by the fact that practically all drugs previously found to be successful in arresting major or generalized convulsive attacks have either had no effect on minor spells or have aggravated them

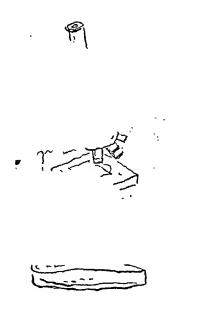
Reporting on a series of 21 cases, Dr. Stone found that Tridione has been very effective. Despite reports that Tridione aggravates major attacks, Dr. Stone found nothing in his series to support the contention. When major fits and petit mal spells exist in the same case, it is very effective, he says, to combine phenobarbital or bromides with Tridione.

(Stone, Theodore T., Quart. Bull., Northwestern University Medical School, 25:93, Summer, 1951.)

# MERCURIAL DIURETICS: SELF-ADMINISTRATION

Seventy-one ambulatory patients with cardiac disease who required regular injections of a mercurial diuretic were trained to self-administer the medication at the adult cardiac clinic, New York Hospital, by Drs. Susannah Krehbiel and Harold J. Stewart. Recognizing that there was medical precedent for such a procedure, in view of the self-administration of insulin by diabetics, Drs. Krehbiel and Stewart first instructed the patient how to use the necessary equipment, and then the patient made the first injection during this teaching session. Fifty of the patients needed two teaching sessions before mastering the technique, and a hospital nurse visited each at the time of the first home injection. In all, during the five-

Vol. XII, No. 6



month period of the study, 1425 subcutaneous injections of mercaptomerin sodium (Thiomerin) were self-administered.

One to 2 cc. of the drug was required, on a schedule varying from twice a week to once every two weeks. Patients returned to the clinic at two-week to monthly intervals.

(Krehbiel, Susannah, and Stewart, Harold J., J. A. M. A., 146: 250, May 19, 1951.)

## ADVANCES IN MIGRAINE TREATMENT

Noting that the great variety of theories regarding migraine illustrate how incomplete our knowledge of the condition is, Drs. A. P. Friedman and Theodore J. C. van Storch hold to the belief that proper treatment is complex and individualized.

Symptomatic treatment is essentially one of pharmacotherapy, and best results to date have been obtained with the use of ergotamine derivatives, and notably with Cafergot, a compound of ergotamine and caffeine, where improvement was noted in 86% of cases. Given parenterally, ergotamine tartrate and dihydroergotamine were of value in 80% of cases. Combinations of caffeine, bellafoline and gynergen used as rectal inserts were efficient in 76% of cases.

Prevention of attacks is largely accomplished by psychothcrapy. Despite the lack of knowledge regarding the basic condition, the authors conclude that treatment techniques have now arrived at a point where frequency and severity can be modified.

(Friedman, Arnold P., and van Storch, Theodore, J. C., J. A. M. A., 145: 1325, April 28, 1951.)

## CORTISONE THERAPY IN ENTERITIS AND COLITIS

In a brief study of six patients, three with chronic regional enteritis and three with chronic ulcerative colitis, Drs. O. Roger Hollan and Thomas E. Machella of the Hospital of the University of Pennsylvania utilized cortisone in treatment. Moderate to marked improvement was noted, with the improvement in the regional enteritis cases directly related to the cortisone. The relationship was not so clear in two other cases. The sixth case, chronic ulcerative colitis, did not respond.

The doctors concluded that a trial of cortisone therapy would appear to be worth while in certain cases, particularly when the situation is desperate and a temporary period of improvement is desired to permit sufficient time for the effective use of other therapeutic measures.

(Machella, T. E., Hollan, O. R., Am. J. Med. Sci., 221: 501, May, 1951.)

## POLIOMYELITIS PRECIPITATED BY INJECTIONS

Recent published reports from Australia, England and Canada inferring that vaccinations or injections of one kind or another precipitate clinical poliomyelitis have occasioned considerable concern among physicians, pharmacists and all others interested in health. In an effort to determine if such is the case, Dr. L. S. Goerke reviewed the records of 1321 cases of poliomyelitis in Los Angeles in 1948. Although he found that in children under 12 years of age the incidence of poliomyelitis was slightly higher among those with records of recent vaccination or injection. the difference (0.032\% against 0.026\%) was so slight as to be statistically insignificant. In view of the values of immunization against other diseases, Dr. Goerke concluded that "the disparities were not wide enough to withhold immunization against other serious diseases on the strength that in so doing a slight reduction in the incidence of crippling poliomyelitis might be effected."

(Goerke, L. S., California Med., 74:383, May, 1951.)

# P-92, NEWLY TESTED ANTI-ALLERGIC PENICILLIN

Hypersensitivity of some patients to penicillin G has speeded the scarch for another form of the antibiotic with anti-allergic properties. Dr. Elmer R. Kadison, S. J. Ishihara, and Thora Waters

(Continued on Page 328)

#### Progress in Medicine

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tested a new form of penicillin, known by the eode number P-92 (CSC), and found that it was tolerated easily by patients previously hypersensitive to procaine penicillin.

In one group of 23 patients, 12 were hypersensitive to penicillin G, but only one responded unfavorably to P-92. In another series, 32 cases hypersensitive to penicillin G were treated for four days with 300,000 units of P-92 and then received 300,000 units of penicillin G. None of them exhibited an undesired reaction, but the authors were unable to explain why penicillin G was tolerated after the administration of P-92.

In all series, those patients treated with P-92 had the same response and in the same manner as one might have expected to have obtained from procaine penicillin.

(Kadison, Elmer R., Ishihara, S. J., Waters, Thora, Am. Practitioner, 2:411, May, 1951.)

#### ANTABUSE AND ALCOHOLISM

According to Capt. Paul W. Dale, Medical Corps, U. S. Army, and Dr. Franklin G. Ebaugh, Denver, alcoholism can be divided into five groups. The success of Antabuse therapy varied with each of these.

In essential aleoholism stemming from oral frustrations or fixations, Antabuse proved most successful. It was nearly as successful in the second group, Reactive Alcoholism, which is somewhat similar to the essential type, except that the patient is surfacely more stable but regresses to alcoholunder psychotraumatic situations of stress. Patients with a character neurosis, the patient with periodic alcoholism, and the patient with alcoholism as a symptom of an underlying major psychosis do poorly. Since alcoholism finds its greatest numbers in the essential group, Antabuse, the doctors conclude, "puts less strain on existing medical facilities than did former approaches, and appears to be equally as, or more, successful."

(Dale, Capt. Paul W., and Ebaugh, F. G., J. A. M. A., 146: 314, May 26, 1951.)

#### PRISCOLINE SUCCESSFUL IN PRE-GANGRENE LEG ULCERS

Ulcers of the legs and feet in the pre-gangrene stage which had not hitherto yielded to treatment were cured in six cases and improved in three by the combined oral and intra-arterial administration of priscoline hydrochloride (2-benzyl-imidazoline-hydrochloride).

It was also given in eight cases of gangrenous uleers of the leg, with no response, according to the report by Drs. F. L. Wilson and E. T. Quash of New York.

The average intra-arterial dose of priscoline was 50 mg, given once daily into the femoral artery for a maximum of twenty-one days. This was supported by oral administration of 200 mg, divided into four equal doses. No damage to the artery or surrounding tissues was noted.

The authors concluded that priscoline is a valuable adjunct in treatment of refractory leg ulcers prior to onset of gangrene and in cases of ulceration of the legs due to arteriosclerosis, diabetes, or chronic inflammation of occluded veins.

(Wilson, F. L., and Quash, E. T., Am. J. Surg., 81: 336, Mar., 1951.)

Special Reprint Feature:

# PRESCRIPTION WRITING FOR SKIN AJLMENTS

by Herman Goodman, M.D. New York, New York

(Reprinted from General Practitioner, 3:4, 63, April, 1951.)

The diagnosis of seables is made by the demonstration under the microscope of the Acarus, the young and the ova from the burrow. However, elinical diagnosis is sufficient to begin treating the patients and the other itching members of the family. Old-fashioned brimstone sulfur is prescribed:

#### FORMULA 1

Sublimed sulfur		12
Potassium carbonate		6
Water, to moisten the carbonate		6
Mineral oil, low viscosity		12.
Lanolin, sufficient to make	_	100.

Directions to Pharmacist: Wet the sulfur with the mineral oil; moisten the carbonate with the water; incorporate the two with the lanolin until smooth.

Directions for Patient: Bathe the entire body each night for four nights with brown laundry soap and water. Rinse. Apply the salve to areas of skin from neck to knees. Bathe next four nights without applying the salve. Following four nights bathe and apply salve.

(Continued on Page 330)

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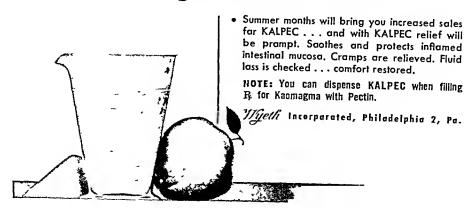
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Combines all—



- PECTIN—enhonces hydrophilic properties
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#### Progress in Medicine

• • • • • • • • • • • • from page 328

Young children with scabies are treated with applications of:

#### FORMULA 2

Balsam of Peru	10.
Caster oil .	10
Lanolin	10.
Petrolatum, sufficient to make	100

Directions to Pharmacist: Gradually incorporate mixture of castor oil and balsam of Peru into mixture of lanolin and petrolatum

Directions for Parents: Bathe children each of four nights with brown laundry soap and water. Apply salve each of four nights. Desist for four nights. Repeat bathing and salve again for next four nights.

An active principle of balsam of Peru is prescribed in the treatment of scabies of adults and children.

#### FORMULA 3

Benzyl benzoate	30
Soft soap .	 30
Isopropyl alcohol, sufficient to make	 100

Directions to Pharmacist: Mix.

Directions for Patient: Apply to body on each of two successive days. All intimate clothing must be rid of infestation.

#### **PEDICULOSIS**

Pediculosis capitis is currently less prevalent than in former years. The home remedy of equal parts of kerosene and sweet oil facilitates removal of the egg cases (nits) and destruction of parasites. A pharmacy substitute is:

#### FORMULA 4

Dilute acetic acid	50.
Isopropyl alcohol, sufficient to make.	100.

Directions to Pharmacist: Mix

Directions for Patients: Soak all the hair on the scalp; cover with eloth for an hour. Fine comb the hair.

The pediculosis corporis lives in the seams of the clothing worn close to the body and invades the skin only to feed. Treatment of the skin is directed toward removing any wandering parasites. Benzyl benzoate emulsion is prescribed:

#### FORMULA 5

Benzyl benzoate	24
Sodium lauryl sulfonate	2
Bentonite	4.
Water, sufficient to make	100.

Directions to Pharmacist: Spread bentonite over 60 parts of hot water; let stand for several hours; then stir until magma forms. Add the benzyl benzoate to the sodium lauryl sulfonate and mix with the magma, adding sufficient water to make 100 parts. Stir.

Directions for Patient: Apply to body on each of two successive days. All intimate clothing must be rid of infestation.

Pubic pediculosis, is treated by application of DDT powder.

#### FORMULA 6

DDT (dichlorodiphenyl	
triehloroethane)	5-10
Pyrophyllite, sufficient to make	100.

Directions to Pharmacist: It is best to arrange for the pharmacist to dispense a commercial product. DDT is effective only if the DDT is ground exceedingly fine—each granule about 10 to 12 micra. The retail pharmacist does not have the apparatus for this grinding.

Directions for Patient: Rub one teaspoonful of the powder into hairy regions of the groin. Repeat each time the hair is wet by shower or bath for two successive days, and after an interval of eight days.

#### IMPETIGO CONTAGIOSA

Impetigo contagiosa is most frequent among children, particularly those with pediculosis capitis. It is also found in male adults on the bearded area of skin due to infection following poor shaving technique and hygienic lapses Topical treatment includes washing with soap and water each hour during the day, and the application of one or another of the modern antibiotic or sulfa drugs.

#### **PRURITUS**

The general practitioner sees many patients who complain of itching, but despite all efforts, the physician may not be able to find a cause for the sensation. Many antipruritic remedies are available. One, benzoeaine, should be prescribed with extreme eaution. Too often, patients find themselves itching more after the application of benzoeaine than before its use.

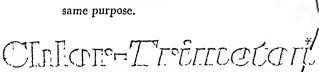
The prescribing of phenol and menthol is discouraged.

Itching with no discoverable cause (how carefully has the search been made?) may be relieved by the following dusting powder:

#### (Continued on Page 332)

predictable control of hay fever

Chlor-Trimeton Maleate, milligram for milligram the most potent antihistamine available, allows the physician to predict a definitive and favorable result in symptomatic control of hay fever. Often successful when others fail, and producing few and minimal side effects, Chlor-Trimeton Maleate may supersede other compounds designed for the same purpose.



nonanleante dan Indicate (brand of chiorprophenpyridamine maleage)

Chlor-Trimeton Maleate is available in 4 mg, tablets.

\*T.VI.

Schering corporation · Bloomfield, N. J.

#### Progress in Medicine

• • • • • • • • • • • from page 330

by moistening with water, rinse, shower, or bath Repeat application.

#### FORMULA 7

Bentonite	30
Tale	10
Magnesium carbonate	30
Magnesium stearate, sufficient to make	100

Directions to Pharmacist: Mix and sift the powders,

Directions for Patient: Dust liberally into itching skin areas.

Magma of bentonite (Formula 8), boiled starch paste (Formula 9), and improved Lassar's Paste (Formula 10), help to relieve itching of undiscoverable cause.

#### FORMULA 8

Bentonite	4
Water, sufficient to make	100

Directions to Pharmacist: Dust the powdered bentonite over the surface of hot water in a jug of large diameter. Let it stand for several hours. Agitate. (These directions vary from the official preparation.)

Directions for Patient: Apply to the skin. After the magma dries and compresses the skin, remove

#### FORMULA 9

Starch	24
Water	100

Directions for Patient: Rub the starch in cold water until smooth. Heat with constant stirring until color changes and translucent paste forms Apply to the affected parts. Remove when hard by moistening with water, rinse, shower, or bath. Repeat application.

Starch powder is not advised. It cakes and has a tendency to rancidity.

#### FORMULA 10

Stareh	24.
Water	50

Directions to Pharmacist: Rub starch in cold water until smooth. Heat with constant stirring until a translucent paste forms. Incorporate

Zinc oxide	24
Mineral oil, low viscosity	8
Sorbo	8
Tween 60	8
Lard, sufficient to make	50

Moisten powder with mixture of fluids and lard. Mix all.

Directions for Patient: Apply to affected parts

#### **BOOK REVIEWS**

Scoville's The Art of Compounding. 8th ed By GLENN L JENKINS, DON E. FRANCKE, EDWARD A BRECHT, and GLEN J SPERANDIO. The Blakiston Company, Philadelphia, 1951 vii + 515 pp. Illustrated. 18 5 x 26 cm. Price \$7 50

This is a fine book for the student and the practitioner of pharmacy. The authors have performed their work of revision in the splendid manner that has marked the work of the earlier revisers of this perennial leader in the field of pharmaceutical education.

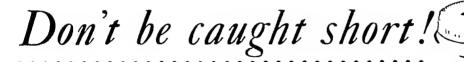
The pharmacist who is called upon to perform some compounding task after a lapse of many years will find a brief refresher course presented here as concisely as possible. The teacher of pharmacy will find this book especially useful because of its selections of prescriptions illustrating the different types of preparations and the many prescriptions for criticism and practice.

Paracelsus (Magic into Science). By HENRY M. PACHTER. Henry Schuman, Inc. New York, 1951 1 + 360 pp. Illustrated. 145 x 21.8 cm Price \$4.

The name "Paracelsus" is known to ehemists mainly because he was responsible, in part, for

freeing chemistry from the superstitions of alchemy Because Paracelsus' approach to chemistry was through medicine and pharmacy, his name is also well known to those familiar with the medical and allied sciences. When the name "Paracelsus" is mentioned, it usually recalls to mind that he taught that the object of chemistry is not to make gold but to prepare medicines, and that he regarded the healthy human body as a combination of chemicals, the imbalance of which resulted in illnesses that could be cured by means of administering the right chemical. He was thus the first to challenge the principles of Galen and may now, in retrospect, be credited with having envisioned the great advances in chemotherapy as we know them today.

Paracelsus is remembered, even by the most superficial student of pharmaceutical and chemical history, for having been one of the first to employ copper, lead, antimony, and other inorganic compounds as medicines. In this way he stimulated the development of the profession of pharmacy by adding many drugs to the materia medica of the 16th century. One historian considers that "pharmacy owes everything to Paracelsus." He doubtless created an interest in chemistry in the minds of physicians and pharmacists of his time, which resulted in the development of that science



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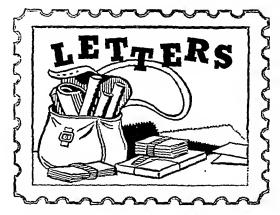
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#### Preparing Methionine Hydrochloride

Sirs:

In the February, 1951, issue of the Journal of the American Pharmaceutical Association, Practical Pharmacy Edition, on page 111, you recommend the preparation of Methionine Hydrochloride as a means of solubilizing the otherwise insoluble Amino Acid.

It may interest you to learn that for some time we have had available Acetylmethionine which is a much more soluble derivative than the parent substance and regarding which we have prepared a data sheet. Your readers may find it of interest. 26-32 Skillman Ave. P. C. Heneld Long Island City, N. Y. Chemo Puro Mfg. Corp.

#### The Values of Membership

Sirs:

I completed my schooling in August, 1950, and became registered in the State of Missouri in November of the same year. Please inform me of the necessary steps I should take to become a regular member of the American Pharmaceutical Association. I am aware of the advantages and of the value of helonging to this Association.

Kansas City, Mo.

WALTER J. CORNELIUS

Sirs:

I am enclosing my application for active membership in your great organization. I shall do everything in my power to prove myself a worthy member.

I know that I shall enjoy reading the Practical Pharmacy and Scientific Editions of the Journal of the American Pharmaceutical Association. New York, N. Y. John Franklin Stizza

#### Armed Forces and the Pharmacist

Sirs:

As a registered pharmacist serving in the armed forces, I wish to thank you and the American Pharmaceutical Association for your untiring efforts to enable pharmacists to gain recognition in the armed forces. By this, I mean your close coordination with the Surgeon General's Office in Washington, D. C., to grant direct commissions to pharmacists.

I was an collisted reservist. Just after graduation from Howard University, College of Pharmacy, Washington, D. C., in June, 1950, I became registered in the State of Pennsylvania, but only to be recalled to active duty in the army in November. 1950. I submitted application for a direct commission under the provisions of SR 140-105-6, Department of the Army, dated 12 October, 1950, in January, 1951. I was appointed a second lieutenant in the Officer Reserve Corps (Active), in March, 1951, and am now awaiting orders to report on active duty as an officer in the Medical Service Corps.

This was made possible only through your worthy and highly appreciated efforts to insure the due prestige of the pharmacists serving our country.

San Francisco, Calif.

SGT. ALONZO SUDLER, JR.

#### Interesting Reading

Sirs:

The Journal of the American Pharmaceutical Association has been of inestimable use to me. On many occasions, information not available from other sources has turned up in one of the Journals or in the Bull. of the Am. Soc. of Hosp. Pharm.

I wish you continued success in your work for the profession of pharmacy.

Toronto, Canada

IRENE O. OLYNYK

Sirs:

The Journal of the American Pharmaceutical Association, especially the *Practical Pharmacy Edition*, contains a wealth of information. I would certainly recommend it to every pharmacist. In terms of monetary wealth, it far out-merits the dues Missoula, Mont.

B. J. Lazzani

Sirs:

I realize the benefits of the AMERICAN PHARMA-CEUTICAL ASSOCIATION and think it is doing a very fine job. I also appreciate the Journals, which inform us of the many developments in the everchanging field of Pharmaey.

Long Beach, Calif.

HANOLD B. FINK, Jn.

Sirs:

Please accept my thanks and sincere appreciation for your "New Prescription Products" index. No more 3 x 5 eards, clippings, or glue, and much more valuable time saved!

The manufacturer's listing is an excellent idea and an added service which is very important, when the name of the product cannot be remembered, but the manufacturer is known.

Every page in the April issue of the Practical Pharmacy Edition contains interesting and useful information for the practicing pharmaeist. We are most fortunate to have an organization such as the American Pharmaceutical Association, with its useful and interesting Journals.

Grinnell, Iowa

HAROLD E. STEBBIAS

# Now—A Simplified Plan for Arrest of Functional Uterine Bleeding



1ST DAY (all cases)

DIVINIMANIH

1 TUBEY

IF BLEEDING STOPS

IF BLEEDING PERSISTS MORE THAN 12 HOURS

2ND DAY

WITHIN 12 HOURS

DUMAIR

3RD DAY





4TH DAY



5TH DAY



Withdrawal bleeding occurs 1 to 6 days after cessation of therapy, and will last 4 or 5 days. Plan cyclic hormone therapy to institute normal bleeding cycle. \*If bleeding is severe, two Tubex are given the first day.

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"Satisfactory arrest of uterine bleeding occurred within 24 hours after beginning of therapy in 48 (84.2%) patients, and within 72 hours in all (100%) patients with functional uterine bleeding"

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I. Greenblatt, R. B. and Barfield, W. E.: "The Therapy of Functional Uterine Bleeding " Read before the Rowan-Davie Chapter Acad. Gen. Practice, Salrabury, N. C., April 24, 1951.
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There is no easy way to permanent business success. Sharp practices, violation of confidence, oppressian of the weak, may serve as temparary short cuts, but the end result is always an unsound arganization unable to withstand the inexorable demands of economic fluctuations. The development of a virile, solid industrial enterprise is a long, tedious process. It calls for sound business methods, fair dealing, a pragressive autlack. The growth of Eli Lilly and Campany has never been spectacular, but always steady. It has a record of seventy-five years of cantinuous progress.

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# AMERICAN PHARMACEUTICAL ASSOCIATION



VOL. XII, NO. 6 CONSECUTIVE NO. 11

# Practical Pharmacy Edition

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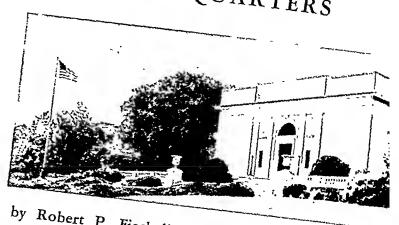
#### JUNE, 1951

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# STRAIGHT FROM HEADQUARTERS



by Robert P. Fischelis, Secretary AMERICAN PHARMACEUTICAL ASSOCIATION

# To the Graduates of 1951

THE AMERICAN PHARMACEUTICAL ASSO-CIATION extends congratulations to the several thousand graduates of our colleges of pharmacy who have succeeded, despite the usual and unusual hazards of the times, in completing their formal education in pharmacy. We welcome them to the ranks of the profession, no matter in what capacity they may choose or be chosen to serve.

Opportunities in every field of pharmaeeutical endeavor were never better; nor have the specialized services of pharmacists ever been in greater demand. In addition to the normal requirements for pharmaceutical manpower, there is also the demand for men in the military age groups to take their places among those called to defend our way of life.

Postponement of induction and deferment from military service to enable completion of college work have been granted pharmaey students as a part of our national selective service policy in the past year. Recently enacted legislation gives the President of the United States authority to provide for the deferment from training and service in the armed forces, or from training in the National Security Training Corps, of persons whose activity in pharmaceutical endeavors is found to be necessary to the maintenance of the national health, safety or interest. Such deferment will, of eourse, be on the basis of the individual status of the pliarma-

Many graduates of 1951 will not be required to enter military service for one reason or another, and most of those who

will be are eertain to take up their pharmaceutical career within a few years in civilian

Wherever you may be called upon to serve as pharmacists, be it in one of the fifty thousand or more pharmacies scattered throughout our country, in the laboratory or executive offices of a manufacturing organization, in teaching or in research, you will earry with you the best wishes of the AMERICAN PHARMACEUTICAL ASSOCIA-TION for success in your chosen endeavor.

The best investment you can make to keep in constant touch with the progress of your profession is in active membership in the AMERICAN PHARMACEUTICAL ASSOCIA-TION. This will bring you the monthly journals and continue your contact with those who are working continuously for the advancement of the ealling you have chosen for your life's work.

# A Word to Students of Pharmac—

THE following significant message from General Hershey to students at Mor tana State University was included in an address delivered at the University or June 4 by Dr. Earl J. MeGrath, U. S. Commissioner of Education:

"My greetings to the students of Montana State University!

"Please do not misinterpret that word 'greetings,' because I do not mean we intend to draft all of you. We in Selective Service System believe that it will be to the best

interests of the Nation as a whole for a great many of you to complete your education.

"That is why we worked out and put into execution the Selective Service College Classification Plan, with which I am certain you are familiar. In so doing we followed the mandate of Congress. For Congress declared, in effect, that preservation of our democracy demands a steady flow of trained men into our national life.

"I want to stress one point—and one point alone—in this brief message. Those of you who meet requirements for deferment as students will not be exempted. You will be deferred. Your military obligation will be simply delayed or postponed, use either word you choose.

"And each time a student is deferred he isn't deferred because we like the way he cuts his hair, or because he has a sunny disposition, or because he is a good football prospect. He is deferred because his record seems to justify the Nation making a wager on him—a wager that he will prove more valuable to his country after he completes his education than were he not to complete it.

"Please do not let the Nation lose the wager."

#### The Buffalo Convention

ON OTHER pages of this issue of the Journal there appears some general information on the Buffalo Convention of the American Pharmaceutical Association and related organizations.

The headquarters will be at the Hotel Statler and all meetings and principal functions will be held there.

A splendid array of papers has been provided for the various sections, as will be noted from the details in the convention article.

In addition to the reports of officers and committees, there will be a number of addresses by outstanding speakers who will deal particularly with current emergencies and long-range programs for the future.

An application for room reservations will be found on page 342 of this issue of the Journal, but every member will receive a copy of this form by mail and additional forms can be obtained by writing for them. No hotel reservations for the convention will be made directly by the hotels. All reservations must go to the Convention Housing Committee to assure proper distribution of the available rooms for all concerned.

There will be no housing difficulty at Buffalo, since the Statler and near-by hotels will be able to accommodate all who plan to attend.

Entertainment for the ladies will be especially interesting because of the close proximity of Niagara Falls and other places of interest. A trip to Niagara Falls for the men attending the convention is also under consideration.

Plan now to meet other members of the Association at this important convention.

#### Fair Trade

When the United States Supreme Court decided on May 21 that the non-signer clause in the Louisiana Fair Trade Act was invalid, it gave notice that the protection of the Miller-Tydings Act did not extend to the non-signer provisions in state fair trade laws generally. The result has been a price cutting spree in certain sections of the country, notably New York City, which may go far in providing the kind of evidence needed to show the Congress of the United States that manufacturers of trade-marked goods can be hurt rather badly unless some protection is afforded against predatory price cutting.

The public is being shown that certain kinds of price cutting, at least, undermine faith in the virtue of free competition. Perhaps the excesses to which some retail organizatious have gone in the past few weeks will serve to focus attention upon the merit of fair trade acts and the necessity for making them effective.

The general consensus seems to be that new Federal legislation is necessary to meet the defects in the law which caused it to lose its teeth, and it is expected that those who have given leadership in developing and enforcing fair trade acts will also take the lead in working out a solution for the present dilemma.

(Continued on Page 340)

#### Straight From Headquarters

Whenever a situation of this kind arises, it points clearly to the importance of the professional prerogatives of pharmacists. Neither fair trade acts nor any other legislation affecting commerce can impede the pharmacist's opportunity to make his living as a professional man. The more emphasis he has given to his professional work and the more the public has come to patronize him because of confidence in his professional ability, the less emphasis will there be on the price paid for services and the price paid for commodities.

In addition to urging ecoperation with those who will honestly endeavor to correct the hardships arising from the recent Supreme Court decision, we would also admonish pharmacists to emphasize and recuphasize their professional activities and to give preference in their promotional work to expounding the services which they alone are licensed to provide.

#### Changes in the F. D. A.

On May 31 Commissioner Paul B. Dunbar of the Food and Drug Administration retired from active service after more than four decades of continuous duty. Dr. Dunbar was one of the early associates of the late Dr. Harvey Wiley—the father of federal food and drug legislation. His services date back to the time of the passage of the original Food and Drug Act of 1906 and he was associated with Dr. Wiley's successors including Dr. Carl Alsberg and Mr. Walter Campbell. He succeeded the latter as commissioner in 1944.

During Dr. Dunbar's association with the enforcement of federal food and drug legislation the enforcement agency passed through several stages of development. Originally it was the Bureau of Chemistry of the Department of Agriculture. For a time it was in the Department of the Interior. It is now the Food and Drug Administration of the Federal Security Agency. The latter also includes the U. S. Public Health Service, the Office of Education and the Social Security Board.

Dr. Dunbar held the position of Assistant

Commissioner and other positions of responsibility connected with the administration of the original Food and Drug Act, and the present Food, Drug and Cosmetic Act. He has published numerous articles dealing with problems of food and drug law enforcement and is considered a leading authority in his field.

We wish to record our appreciation of the high sense of responsibility with which Dr. Dunbar discharged his official duties and we join his many friends in extending best wishes for a long period of enjoyable retirement.

On June 1, former Associate and Deputy Commissioner of Food and Drugs Charles W. Crawford succeeded Dr. Dunbar as Commissioner. He has been connected with the F. D. A. for more than thirty years in its regulatory work and was closely associated with the late Dr. Royal Copeland, Senator from the state of New York, in the passage of the present Food, Drug and Cosmetic Act. He is generally considered as having been responsible for most of the drafting of the regulations under the present Act.

The appointment of Commissioner Crawford to succeed Dr. Dunbar was followed by the announcement of the appointment of George P. Larrick to be Deputy Commissioner and the announcement of seven other appointments to top-ranking positions in the Washington headquarters and field organizations of the F. D. A.

John L. Harvey was promoted from Director of Regulatory Management to Associate Commissioner.

Maleolm R. Stephens, chief of the Chicago district moves to Washington to become Associate Commissioner.

Kenneth L. Minstead becomes Director of Regulatory Work, moving from the position of chief of the Cincinnati district to Washington. He will be succeeded at Cincinnati by Chester I. Hubble who now heads the Minneapolis district. Maurice P. Kerr, now Chief Inspector at New York, will become chief of the Minneapolis district.

Shelby I. Grey, chief of the Boston district, becomes chief of the Chicago district, and will be succeeded at Boston by F. Leslie Hart, who is at present chief chemist at Los Angeles.



#### Statler Hotel to be Headquarters for Annual Meeting of the Association

BUFFALO will be the scene of the 98th meeting of the AMERICAN PHARMACEUTICAL ASSOCIATION and affiliated and related organizations. Beginning with the annual meeting of the National Conference of State Pharmaceutical Association Secretaries on Saturday, August 25, and ending with the final general session of the AMERICAN PHARMACEUTICAL ASSOCIATION on Friday, August 31, there will be a succession of programs of interest to special groups and to the members of the ASSOCIATION at large from morning until night, with pleasing interludes of entertainment including a visit to Niagara Falls as well as the Annual Banquet and President's Reception.

The Plant Science Seminar which conducts its meetings and trips in advance of the convention gets underway at the University of Buffalo, Wednesday, August 22, and continues to Saturday, August 25

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#### A. A. C. P. Meeting

The American Association of Colleges of Phar-

macy will begin its sessions on Sunday afternoon, August 26, and will hold additional generalsessions on the following Monday and Tuesday afternoon.

Teachers' conferences will be held on Monday morning, August 27, and there will be a display of audio-visual educational aids in connection with these conferences. There will be separate meetings of teachers of pharmacy, pharmaceutical economics, chemistry, and biological sciences There will also be a joint teachers' conference for graduate instruction on Tuesday morning, August 28.

#### N. A. B. P. Meeting

The sessions of the National Association of Boards of Pharmacy begin Monday morning, August 27, and continue on Monday afternoon following the customary luncheon of board members and their guests. Morning and afternoon sessions of the N. A. B. P. will also be held on Tuesday, August 28

The American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy will join in their annual banquet at the Statler Hotel on Monday evening, August 27.

#### A. C. A. Sessions

The members of the American College of Apothecaries begin their annual open sessions on Sunday, August 26, at 1:30 P.M. Additional open sessions will be held on Monday morning and afternoon, August 27, and on Tucsday, August 28, this group will hold closed sessions both morning and afternoon.

#### Hospital Pharmacists to Meet

The American Society of Hospital Pharmacists

(Continued on Page 343)

#### Straight From Headquarters

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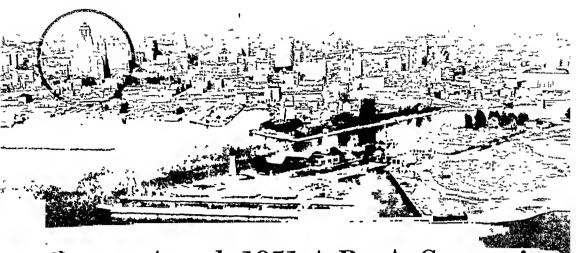
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Teachers' conferences will be held on Monday morning, August 27, and there will be a display of audio-visual educational aids in connection with these conferences. There will be separate meetings of teachers of pharmacy, pharmaceutical economics, chemistry, and biological sciences. There will also be a joint teachers' conference for graduate instruction on Tuesday morning, August 28.

#### N. A. B. P. Meeting

The sessions of the National Association of Boards of Pharmacy begin Monday morning, August 27, and continue on Monday afternoon following the customary luncheon of board members and their guests. Morning and afternoon sessions of the N. A. B. P. will also be held on Tuesday, August 28.

The American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy will join in their annual banquet at the Statler Hotel on Monday evening, August 27.

#### A. C. A. Sessions

The members of the American College of Apothecaries begin their annual open sessions on Sunday, August 26, at 1:30 p.m. Additional open sessions will be held on Monday morning and afternoon, August 27, and on Tuesday, August 28, this group will hold closed sessions both morning and afternoon.

#### Hospital Pharmacists to Meet

The American Society of Hospital Pharmacists

(Continued on Page 343)

#### HOTEL RESERVATION FORM

#### 1951 CONVENTION

### AMERICAN PHARMACEUTICAL ASSOCIATION

August 26-31, 1951

Buffalo, New York

All meetings will be held at the Statler Hotel, Delaware Avenue at Niagara Square. See list of other hotels at bottom of this page. NO RESERVATIONS WILL BE ACCEPTED DIRECTLY BY HOTELS, Use the following form in making all reservations.

A. PH. A. HOUSING COMMITTEE BUFFALO CONVENTION & TOURIST BUREAU 602 Genesee Building Buffalo 2, New York

Please make hotel (reservation(s) a	s shown below:			
HOTEL		First Choice	(If the hotel unable to n	s of your choice ar
HOTELSecond Choice			tions, the H	unable to accept your reserva tions, the Housing Bureau wil make as good a reservation a
HOTEL	Third Choice	possible else	possible elsewhere.)	
Number of room(s) with bath	*Doublo roor	n(s)R	tate preferred \$	•••
••••	Twin bedde	d roomsR	tate preferred \$	•••
••••	Single room	(s)R	ate preferred \$	
Arriving August	(Checkou	t hour 6:00 p.m.)	.p.m. Leaving August	·····
* A "double room" contains only	one bed, for occupan	icy by two persons.		
THE NAM	E OF EACH HO	TEL GUEST MI	UST BE LISTED	
Please print the names of both persons for whom you are requests CATION WILL BE RETURNE	ng reservations and	ole room or twin bed who will occupy the	ded rooms requested. rooms asked for; OTH	Also names of all ER WISE APPLI-
	•••••			
				•••••
APPLICANT		STREET ADE	PRESS	
CITY	zone	STATE		•••••
	HOTEL RAT	TES IN BUFFAL	o	
HOTEL	Single	Double	Twin	Suites
Statler	5.00-7 50	8.00-10.00	9.00-14.00	14.00-21.00
Stuyvesant	5.00-8.00	8.00-10.00	9.00-14.00	
Sheraton	4.50-5.00 4.50-10.00	7.00- 7.50 4.85- 6.75	7.50+ 8.50 7.65-14.00	
Touraine		6.00- 7.00	7.50	10.00-13.00
Lafayette	3.75- 5.00	6.50-10.00	7.00-10.00	10.00-10.00
Buffalo	3.50- 5.00	6.00- 8.00	7.00-8.00	
Midtown	3.00- 5.00	5.00-10.00	7.50-10.00	
Markeen	3.00- 4.50	5,75-8,50	5.75-15.00	16,00
Richford	2.75 - 3.75	4.25-7.00	4.00-7.00	
Worth	2.50	4.00	5.50	
Graystone	2,25-3,50	4.00 - 5.50	5.50- 6.00	
	Mail Request for	Room Reservation	is to:	

Mail Request for Room Reservations to:

A. PH. A. HOUSING COMMITTEE IMPORTANT:

> Buffalo Convention & Tourist Bureau 602 Genesee Building Buffalo 2, New York

#### A. PH. A. Convention

••••••• from page 341

will hold its customary two-day session with an extra session of its House of Delegates scheduled for Sunday, August 26, at 4:00 P.M. Representatives from the local affiliated chapters, the executive committee, and chairmen of special committees making up the House of Delegates, will review the Society's activities at the Sunday afternoon session and prepare recommendations for action at the annual meeting.

In addition to the business sessions which are scheduled both morning and afternoon of Monday and Tuesday, August 27 and 28, the annual meeting of this group will be highlighted by a panel discussion on the effect of minimum standards on both hospitals and the profession of pharmacy. Participants in this panel discussion will include representatives of the American College of Surgeons, the American Hospital Association, the American Medical Association, the Catholic Hospital Association, the American Pharmaceutical Association, and the American Society of Hospital Pharmacists.

Sessions of practical interest to hospital pharmacists will include a panel on specialized equipment; a discussion on current trends in therapy; a paper on monthly reports, and stock control procedures. These subjects will all be presented by hospital pharmacists. The customary breakfast meeting will be held on Tuesday morning, August 28, for all members of the A. S. H. P. and their guests.

#### A. PH. A. Sections

The sections of the A. Ph. A. have worked out excellent programs with several hundred papers scheduled for presentation before the Scientific Section, the Section on Practical Pharmacy, the Section on Historical Pharmacy, the Section of Pharmaceutical Economics, and the Section on Education and Legislation.

Led by the Scientific Section, with more than 110 papers covering practically every phase of pharmaceutical science, the programs of the Sections will furnish something of interest to every member in attendance, regardless of what his primary interests may be.

The Scientific Section will also hear the Annual Iodine Educational Bureau, Inc., Award Lecture. The lecturer this year will be Dr. C. P. Leblond of McGill University, Montreal. This lecture will be given on Wcdnesday afternoon, August 29.

#### Practial Pharmacy Section

The program of the Section on Practical Pharmacy includes more than 25 papers, dealing with practical prescription and compounding prob-

lems, methods of manufacture and dispensing, prescription surveys, and reports of researches with specific application to prescription problems.

The Section on Education and Legislation includes papers on teaching problems, pharmacy extension services, pharmacy interneship, and prescription economics.

The Section on Historical Pharmacy will combine its program again with the American Institute of the History of Pharmacy, and a series of interesting historical researches bearing on pharmacy's past will be presented by contributors from the pharmaceutical industry, teachers of pharmacy, and practitioners.

#### House of Delegates

Sessions of the House of Delegates will begin on Tuesday evening, August 28, and continue on Wednesday morning, August 29, and Friday morning and evening, August 31. Pending emergency matters dealing with civil defense, military affairs, civilian requirements of essential drugs, and related matters will receive the earnest consideration of the delegates. Likewise, legislation dealing with such problems as prescription filling and refilling and inter-professional relations and public relations, will require serious consideration.

#### General Sessions

The General Sessions of the AMERICAN PHARMACEUTICAL ASSOCIATION are scheduled for Tuesday evening, August 28, Thursday morning, August 30, and Friday evening, August 31. The first General Session will be devoted to the annual address of the President. The second General Session will include addresses by leading governmental authorities with special emphasis on the activity of the medical departments of the Army, the Navy, the Air Force, and the Public Health Service.

Entertainment for the ladies is receiving special consideration by the Convention Committee at Buffalo. A tour of the city is scheduled for Monday, August 27; card party for Tuesday, August 28, the annual "Brunch" and meeting of the Women's Auxiliary is scheduled for Thursday, August 30. Wednesday, August 29, will be devoted to a trip to Niagara Falls and nearby places of interest, with the annual banquet of the AMERICAN PHARMACEUTICAL ASSOCIATION and related organizations scheduled for August 30. The meeting of the Women's Auxiliary will be continued to Friday, August 31.

Buffalo pharmacists have been splendid hosts to the A. Ph. A. on previous occasions and will no doubt outdo themselves to make the 1951 Convention a memorable one.

# The pprentice system

### **EVERY PHARMACIST'S OBLIGATION**

by Leib L. Riggs

President, Oregon Board of Pharmacy

There are three danger zones in the present method of obtaining practical experience. The responsibility is large, and pharmacists everywhere should work toward better practical training for our pharmacists of tomorrow. First presented before the Section of Education and Legislation, American Pharmaceutical Association, May, 1950

The recently completed Pharmaccutical Survey devoted a portion of its activity to the evaluating of practical experience for licensure... One of the most scathing indictments of the entire survey was directed toward this phase of our pharmaceutical structure.

Presently some states require two years' practical experience for licensure—most states require one year, and in four states no practical experience is required for licensure.

#### DUTY OF STATE BOARDS

The basic factor involved in this well-merited criticism of the grade of practical experience in most instances, is the failure of the state boards of pharmacy to effectively enforce rules and regulations properly. As a board member, I feel qualified to make this statement and at the same time assume my share of the responsibility. In defense of the boards, it can be said that they are fully aware of the need for improvement. In 1947 the National Association of Boards of Pharmacy adopted what is known as "The Minimum Standards for Evaluating Practical Experience." There has been some progress made since that time and as a result many of the states have adopted these standards and are attempting to be guided by their provisions. Success in this endeavor is assured in only one way-the acceptance and support of higher standards by all pharmacists.

The Survey suggests that "the fundamental responsibilities of the master pharmacist to the

apprentice have yet to be realized and fulfilled. Practical experience as now administered in all but a few of the states, has no professional significance beyond its involvement with licensure reciprocity. The issue is whether to 'professionalize' practical experience or abolish it as a prerequisite for licensure."

To me the above statement is so challenging that it demands our attention. It is generally conceded that the Survey made its conclusions known, only after exhaustive study and considered thought. I am going to proceed on the assumption that we should not abolish the practical experience portion of the training required for licensure and practice. There may be some who disagree as to the value of practical experience, but their decisions have doubtless been made as a result of observations where lax methods were in vogue.

It is generally accepted that there is no better way to become proficient in applying academic knowledge than in actually applying it to practice under proper conditions and supervision. It may be argued that the practical experience requirement is merely the last remaining portion of the old apprenticeship system used in the days preceding our present form of academic training. This is admitted, but the opposing argument is that this is the one portion of the old system that should be retained. The pendulum should not swing too far to the theoretical side, climinating the desirable features of the past. Our fathers and grandfathers obtained their training almost entirely by the practical experience route. This was true not only in pharmacy, but in law and other professions and crafts. In the old days if the student learned theory, it was necessary that he gain it by personal perseverance without the aid of competent instructors. We have placed great stress on the improvement in instructional methods used to teach theory, but it would appear that we have neglected to take notice of the need for improved methods of obtaining practical experience under proper supervisory conditions.

#### PRACTICAL PHARMACY EDITION

#### THE TREND IN MEDICINE

All agree that medicine has reached the highest level among all the professions with respect to its achievements in raising standards of education and practice. It is interesting to note that the medical profession has realized the importance of practical application of theoretical knowledge. It has not only devised very rigid requirements for the regulation of the required one year of internship following medical school, but has added as much as two or three years additional for those who desire to qualify for certification by specialty boards.

Dentistry, realizing the importance of the practical, has lengthened the dental course and as a result the necessary practical experience is gained at the time of theoretical instruction. The average state board examination in dentistry is almost entirely devoted to the task of determining the candidate's proficiency in applying his skills.

In recent years, the training for nurses has incorporated sufficient theory to enable those who graduate to qualify for the baccalaureate degree. There has been, however, no inclination to eliminate the practical experience feature.

Advanced schools of business require their students to spend an equal amount of time performing actual procedures and routines as is spent in study of texts. The practical experience phase of a pharmacist's training pervades and integrates the values of all his studies

#### MINIMUM STANDARDS

The Minimum Standards adopted by the N. A. B. P. in 1947 contain eight provisions, for the guidance of boards of pharmacy. These provisions are referred to as the Minimum Standards. None of us are content with the minimums—we should aspire to standards superior to those adopted by the N. A. B. P. Referring to these provisions we find that regulation. No. 6 states, "the term supervision as used in connection with the practical experience requirements, shall mean that in the pharmacy where practical experience is being obtained, a registered pharmacist shall be in personal contact with, and actually giving instructions to the person obtaining experience

(Continued on Page 374)

Our preceptor system has come a long way, but more progress must be made





Since the introduction of cortisone, clinical case histories have told us much about its uses, dosage and dangers

A LTHOUGH great advances have been made in research into the chemistry and pharmacology of cortisone, a thorough understanding of the mechanism by which it produces its effects has yet to be established.

Extensive clinical research is being carried on in an effort to solve this mystery. Hundreds of physicians in the United States are collaborating in the program, and reports on thousands of cases involving cortisone therapy are examined by the Medical Division of Merck & Co, Inc., each month. These reports add to the mounting weight of testimony to the remarkably beneficial effects of cortisone in an ever-widening list of diseases. In fact, cortisone has now been found of value in almost every medical specialty, including internal medicine, dermatology, ophthalmology, pediatrics, orthopedic surgery and allergy.

The chart on page 348 shows an approximate clinical classification of the present evaluation of the use of Cortone®\* in different disorders.

Certain diseases have remained in the "Excellent Beneficial Effects" column ever since the first case of the particular disease was treated. However, examination of all classifications over a period of several months would show a number of changes. Behind the variations is a growing volume of clinical results which may confirm earlier impressions or reveal that these were based on too limited experience. Certain generalizations are now possible on a statistical basis, but it is still impossible to explain why patients with the same disorder may require widely varying doses, obtain varying degrees of relief and maintain a remission for differing periods following cessation of treatment. Obviously, much more extended clinical trial and further understanding of the modes of action of cortisone are necessary to determine specifically the potentials and limits of its effectiveness in any given case.

<sup>\*</sup> Merck & Co . Inc., brand of cortisone.



#### WHAT WE DON'T KNOW

So far as treatment is concerned, medical science still searches for answers in the following areas:

- 1. The cortisone threshold in the various diseases. What precise dosage is required to produce beneficial effects without undesirable side effects? Treatment must be individualized, but can one determine in advance what the optimum dosage will be in a given case?
- The speed with which the body absorbs, inactivates or excretes administered cortisone.
- Time-dose relationships between externally administered cortisone and the production of cortisone or cortisone-like hormones by the body, which would determine the total amount available in body tissues during and after treatment.

#### WHAT WE DO KNOW

Certain generalizations which may be made about cortisone treatment, from clinical reports received thus far, are as follows:

- Cortisone is not a cure, apart from certain inflammatory eye diseases and other self-limited disorders such as skin eruptions caused by sensitivity to certain drugs. It can, however, suppress almost all manifestations of many diseases, hitherto resistant to all other treatment, for as long as it is administered.
- Many of the physiologic effects produced by cortisone appear to be nonspecific; i.e., if given in large enough doses for a sufficient period of time, its physiologic effects can be produced in anyone, normal or diseased.

3. The ability of cortisone to ameliorate the symptoms of certain diseases appears to depend on its ability to alter the reaction of tissues to a variety of agents rather than on a direct effect on the causative agents themselves.

#### SAFE ADMINISTRATION

Successful treatment with cortisone still requires careful administration by a physician educated in the use of cortisone. Safe, effective administration with few undesirable effects depends largely on the following:

- 1. Exhaustive, intelligent, pre-treatment study of the patient.
- 2. Critical pre-treatment appraisal of the activity of the disease.
- Carefully calculated but adequate initial dosage.
- 4. Estimation of the ability of the patient to tolerate the drug (mental, physical, and nutritional status, coexisting diseases, sex, and possibly other factors about which little is now known). In general, caution should be exercised with the use of cortisone in patients having infection or possessing psychotic tendencies. In the former, cortisone may interfere with the immune response or mask the infectious process. In the latter, a frank psychosis may develop.
- 5. Constant reassessment of the case, with frequent readjustment of dosage. It should be emphasized that the daily dosage will vary with different diseases, in different patients with the same disease, on different days with the same patient, and in different phases in the evolution of the disease.

(Continued on next page)



## Clinical Status of Cortisone

#### ITS USE IN CERTAIN DISEASES

In acute rheumatic fever cortisone suppresses the signs and symptoms of active disease, and it apparently prevents development of rheumatic carditis or the progression of pathologic changes in the heart. Cortisone will not prevent or cure rheumatic fever, nor does it effect any change in pre-existing structural cardiac damage. The inherent duration of the acute phase is probably not shortened by cortisone therapy.

With periarteritis nodosa, cortisone usually suppresses the activity of the disease in early stages. Although it may cause healing of the lesions, the reparative process may result in vascular occlusion.

During cortisone therapy of bronchial asthma, hay fever, and vasomotor rhinitis, complete symptomatic relief usually results. In asthma, vital capacity is usually increased.

In the treatment of rheumatoid arthritis it is important to avoid excessive dosage. It may be unwise to bring about 100 per cent relief, since the dosage required to accomplish this may do one of two things. It may give the patient such complete relief and such a boost to his general sense of well-being that he may unwisely demand a continuation of large doses in spite of the

physician's advice. On the other hand, it may be more than the patient can tolerate without undesirable and perhaps serious side effects.

Following withdrawal of cortisone in rheumatoid arthritis, the adrenal cortical function returns to pre-treatment level of activity usually within two to four weeks, and in all cases thus far within two months. Best results from cortisone therapy are obtained in patients in whom low dosages of cortisone will produce adequate remissions without hormonal effects, usually those who do not have extremely severe disease.

#### NEW DOSAGE FORMS

Cortisone has a direct effect on the diseased tissues, and may be applied topically with profit on accessible lesions such as those of the eye. Merck laboratories are currently making great progress in devising specific formulations for special topical uses, such as ointments and eye drops.

This expansion of its field of usefulness, plus the almost equal effectiveness and convenience, dose for dose, of either parenterally or orally administered cortisone, make the "Compound E" product doubly important in treatment of disease. Its value to the world of practical medicine continues to increase, even though the mystery of its method of operation remains unsolved.

#### RESPONSE TO CORTONE IN VARIOUS DISEASES

BENEFICIAL EFFECTS EXCELLENT	BENEFICIAL EFFECTS VARIABLE	BENEFICIAL EFFECTS TRANSIENT
Rheumatic Fever	Lupus Erythematosus (early)	Acute Leukemia (lymphocytic
Inflammatory Eye Diseases	Periarteritis Nodosa (early)	or granulocytic)
Various Allergies - bronchial	Pulmonary Fibrosis (early) in-	Chronie Lymphatic Leukemia
asthma, hay fever, drug sen-	cluding Berylliosis	Lymphosarcoma
sitization, serum sickness, angioneurotic edema	Retrolental Fibroplasia (early)	Multiple Myeloma
Pemphigus	Ulcerative Colitis	Hodgkin's Disease
Rheumatoid Arthritis	Regional Enteritis	
Rheumatoid Spondylitis	Psoriasis	
Still's Disease	Acute Gouty Arthritis	
Psoriatic Arthritis	Hemolytic Anemia	
Addison's Disease	Nontropical Sprue	
Panhypopituitarism	Nephrotic Syndrome	
	Scleroderma (early)	
Adrenogenital Syndrome	Dermatomyositis	
Postoperative management of pa- tients having hyperfunctioning adrenal cortices (Cushing's Syndrome)		
o indiano,		

Sarcoidosis

## PRESCRIPTION PRODUCTS

This monthly listing of new prescription products is designed for easy insertion in a ring binder. Simply lift out the eight pages, punch holes where marked, and slip into an  $8^{i}/s$  x 11 binder. A continuing six month index appears on the sixth and seventh pages for quick reference. Manufacturers are urged to send their new product information to the Executive Editor, American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C., for inclusion in this free copyrighted editorial service-

#### ANACOL COUGH SYRUP

Description: A sedative and anodyne expectorant containing in each 30 cc.: dihydrocodeinone bitartrate, 10.0 mg.; ammonium chloride, 0.5 Gm.; tartar emetic, 8.0 mg.; sodium citrate, 0.6 Gm.; citrie aeid, 0.3 Gm.; and chloroform, 0.12 Gm.

Indications: For relief of inflammatory conditions of the respiratory mucosa. Stimulates the soothing bronchial, tracheal and pharyngeal secretions, and holds the frequency and severity of coughing within efficient productive bounds.

Administration: Adults: 1 teaspoonful every three hours. Children: smaller doses according to age.

Form Supplied: Pint and gallon bottles.

Source: The Warren-Teed Products Co., Columbus, Olio.

#### A P C PLUS PHENASPO

Description: Capsules, each containing: pheno-barbital, 1/4 gr.; acetylsalicylic aeid, 5 gr.; aceto-phenetidin, 21/2 gr.; and caffcine, 1/4 gr.

Indications: As an analgesic, for treatment of headache, arthritis, myalgia, neuralgia, and neuritis. Also recommended in treatment of the common cold, influenza, tonsilitis, pharyngitis, laryngitis, and rheumatism.

Administration: 1 or 2 capsules repeated at two to four hours, or as directed by physician.

Form Supplied: Bottles of 100, 500, and 1000. Source: Norgate Laboratories, Forest Park, Ill.

#### **ASTEROL**

Description: An antifungal agent [dilydroeldoride of 2-dimethylamino-6-(beta-diethylamino-ethoxy)-benzothiazole], available as a 5% tineture, a 5% ointment, and a 5% dusting powder.

Indications: Useful in the treatment of fungus infections of the skin, hair, and nails, such as ringworm and athlete's foot.

Administration: Tincture or ointment may be applied once or twice daily. In ringworm of the scalp, the drug may be employed concurrently with depilution, elipping, or shampooing.

Form Supplied: 2- and 16-ounce bottles of tineture; 1-ounce collapsible tubes and 1-pound jars of ointment; and 1<sup>1</sup>/<sub>2</sub>-ounce containers of dusting powder.

Source: Hoffmann-La Roche, Inc., Nutley, N. J.

## B-TROPIC CAPSULES AND SOLUTION

Description: Capsules, each containing: clfolinc dihydrogen citrate, 375.0 mg.; inositol, 125.0 mg.; thiamine hydrochloride 1.0 mg.; riboflavin, 0.5 mg.; and nicotinic acid, 5.0 mg. Solution, each fluid-ounce containing: tricholine citrate (47% choline), 6.0 Gm.; inositol, 2.0 Gm.; thiamine hydrochloride, 3.0 mg.; riboflavin, 2.0 mg.; and nicotinic acid, 20.0 mg.

. Indications: Prevention and treatment of hepatic cirrhosis; atherosclerosis, arteriosclerosis; diabetic hypercholesterolemia; crythroblastosis of the newborn; dermatologic disorders such as xanthomatosis; and other conditions for which lipotropic-oxytropic therapy is desired.

Administration: Capsules—2 to 4 capsules four times daily after meals and before retiring. Solution—1/2 to 1 tablespoonful three times daily immediately following meals.

Form Supplied: Capsules—Bottles of 100, 500, and 1000. Solution—pint and gallon bottles.

Source: The Valc Chemical Company, Inc., Allentown, Pa.

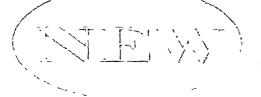
#### **CALPHOSAN**

Description: Calcium glycerophosphate and calcium lactate in physiological salt solution.

Indications: For allergies, dermatoses, states of anxiety and depressions, menopausal syndrome, tetany and conditions where calcium supplementation is indicated.

Administration: 10 ee. intranuscularly or subcutaneously, as directed by physician, one or two times a week as indicated.

(Continued on next page)



## PRESCRIPTION PRODUCTS (Cont.)

Form Supplied: 60 ce. in multiple dosc vials and 10-ce. ampuls in boxes of 10 and 100.

Source: Carlton Chemical Co., Inc., New York, N. Y.

#### CHLOROMYCETIN CREAM

Description: 1 per cent chloromycetin incorporated in a smooth, non-irritating cream for topical use.

Indications: For treatment of many superficial infections and dermatological conditions complicated by secondary infections; and for dressing minor surgical wounds.

Administration: As directed by physician. Form Supplied: 1-ounce dispensing tubes. Source: Parke, Davis & Co., Detroit, Mich.

#### CHLOROMYCETIN OPHTHALMIC

Description: Dry powder containing chloromycetin and a buffer, to be dissolved in sterile distilled water.

Indications: As a prophylactic after removal of sharp foreign bodies from the eye; and in treatment of infections such as bacterial conjunctivitis when due to susceptible organisms.

Administration: As directed by physician.

Form Supplied: Vials containing 25.0 mg. of chloromycetin with a borate buffer equivalent to 100.0 mg of boric acid.

Source: Parke, Davis & Co., Detroit, Mich.

#### CORTICOTROPIN

Description: Hormone containing adrenocorticotropic activity derived from the anterior pituitary.

Indications: In collagen diseases; metabolic discases; certain types of hypersensitivities; and ophthalmologic conditions.

Administration: As directed by physician.

Form Supplied: Vials of 5 cc. eontaining 200 units.

Source: The Wilson Laboratorics, Division of Wilson & Co., Inc., Chieago, Ill.

#### **CREMOMETHAZINE**

Description: Suspension of soluble sulfamethazine, containing in each 30 cc., 3.0 Gm. of sulfamethazine, finely divided. One 5 ee. teaspoonful is equivalent to one 0.5 Gm. sulfamethazine tablet.

Indications: For systemic and minary tract infections.

Administration: According to age, upon direction of physician.

Form Supplied: "Spasaver" pint bottles.

Source: Sharp & Dolunc, Inc., Philadelphia, Pa.

#### CYCOTIN TABLETS

Description: Tablets, each combining the bulking agent, methylecllulose, 0.5 Gm.; and the appetite depressing qualities of d-amphetamine phosphate, 1.67 mg.

Indications: For weight control therapy; safely curbs the appetite through its dual anoretic action, keeping the patient in a cooperative mood while on a restrictive diet.

Administration: 1/2 hour before meals, amount determined by physician.

Form Supplied: Bottles of 100, 500, and 1000. Source: Reed & Carnrick, Jersey City, N. J.

#### DI-ERONE

Description: Tablets, each containing: dienestro, 0.25 mg.; and methyltestosterone, 5.0 mg.

Indications: For the relief of menopausal symptoms.

Administration: Adults: 1 table duily increased or decreased.

Form Supplied: Bottles of 20 and 60 tablets. Source: Kremers-Urban Co., Milwaukee, Wis.

#### DORAXAMIN

Description: Tablets, each containing 0.5 Gm. of dihydroxy aluminum aminoacetute.

Indications: Intended for peptic uleer and hyperacidity therapy.

Administration: 1 or 2 tablets, one or two hours after meals.

Form Supplied: Bottles of 100, 500, and 1000. Source: Smith-Dorsey Co., Lincoln, Neb.

#### ERYTHGEN TABLETS

Description: Hemopoietic and menatimic tablets containing vitamin B<sub>12</sub>, stomach and liver activator, ferrous iron, vitamin B complex factors, and vitamin C



Indications: Useful in the treatment of primary, secondary, and iron deficiency anemias.

Administration: Orally, as directed by physician. Form Supplied: Bottles of 100 and 1000. Source: G. W. Carnrick Co., Newark, N. J.

#### HEMBENAL

Description: Solution for injection containing: crystalline vitamin B<sub>12</sub>, 25.0 mcg.; liver injection, 0.2 cc.; thiamine hydrochloride, 25.0 mg.; niacinamide, 50.0 mg.; riboflavin, 1.0 mg.; pyridoxine hydrochloride, 1.0 mg.; procaine hydrochloride, 1%; and benzyl alcohol, 1.5%.

Indications: For treatment of pernicious and secondary anemias, and other deficiency conditions, especially where administration of liver, vitamin  $B_{12}$  and the accessory vitamins is desirable.

Administration: Therapeutic: 1 to 2 cc. one to three times a week by deep intramuscular injection. Maintenance: 1 cc. weekly. In multiple vitamin deficiencies: 5 to 10 cc. weekly in divided doses.

Form Supplied: 10-cc. multiple dose vials.

Source: Carlton Chemical Co., Inc., New York, N. Y.

#### **HEMONUTRON PLUS**

Description: Vitamin tablets, each containing: vitamin  $B_{12}$ , 5.0 mcg.; folic acid, 1.0 mg.; ferrous gluconate, 4 gr.; ascorbic acid, 50.0 mg.; thiamine, 1.0 mg.; riboflavin, 1.0 mg.; pyridoxine, 0.5 mg.; calcium pantothenate, 0.5 mg.; and niacinamide, 10.0 mg.

Indications: In the treatment of various microcytic anemias, secondary hypochromic anemias, and mixed macrocytic-microcytic anemias.

Administration: 1 tablet following each meal. Form Supplied: Bottles of 100.

Source: Nion Corp., Los Angeles, Calif.

#### HYDROLOSE SYRUP

Description: A hydrophyllic, bulk-increasing laxative containing in each 5 cc. (I teaspoonful) 1 Gm. pure synthetic gum methylcellulose.

Indications: For prevention and treatment of constipation. Aids in stimulating peristalsis and promoting free and regular elimination.

Administration: Adults: I tablespoonful every morning and evening followed by a glass of water. Children: 1 or 2 teaspoonfuls with water once or twice daily.

Form Supplied: 12-ounce bottles.

Source: The Upjohn Co., Kalamazoo, Mich.

#### KHELISEM

Description: Enteric coated tablets containing 25.0 mg. of visammin.

Indications: One of the glycosides of the plant Ammi visnaga, for use in treating certain coronary conditions, such as angina pectoris and asthma.

Administration: Dosage must be regulated for each patient according to need as determined by physician.

Form Supplied: Bottles of 50.

Source: S. E. Massengill Co., Bristol, Tenn.

#### NEO-CUTONE

Description: Liquid, each ounce containing: calamine, 8%; benzocaine, 3%; and pyrilamine, 1%

Indications: To relieve itching and stinging pains associated with sunburn, dermatitis venenata due to poison ivy, poison oak, sumac, and other contactants, and insect bites.

Administration: As directed by physician. Form Supplied: Pint and gallon bottles. Source: Sutliff & Case Co., Inc., Peoria, Ill.

#### **ODI-LATE TABLETS**

Description: Choleretic-antispasmodic tablets, each containing: homatropine methylbromide, 1.2 mg.; ox bile extract, 60.0 mg.; nitroglycerin, 0.12 mg.; and magnesium sulfate, 0.3 Gm.

Indications: Antispasmodic for the relief of spastic gastro-intestinal and urinary tracts. Aids in stimulating the volume of bile flow and has a dilating and relaxing action on the common bile duct and the sphineter of Oddi so that small stones may often he washed through to the intestine, thus avoiding surgery.

Administration: Adults: 1 or 2 tablets three times daily before meals.

Form Supplied: Bottles of 100 and 1000 tablets.

Source: The Warren-Teed Products Co., Columbus. Ohio.

#### ORETON-M BUCCAL TABLETS

Description: Mcthyltestosteronc U. S. P. in Polyhydrol, permitting absorption of methyltestosterone directly into the systemic circulation.

Indications: In androgen deficiencies, such as: prepuberal hypogonadism or eunuchoidism, and the male climaeteric or functional hypogonadism of middle age.

(Continued on next page)

Administration: After initial standardization of patient by means of Oreton injections, natients may be maintained on one-half to one 10.0-mg, tablet daily. In some cases, one-half tablet three times weekly will be sufficient. Tablet should be placed well into the lower buccal space, adjacent to the buceal surface of the gums, opposite the first molar Mid-morning, mid-afternoon and before retiring are best times for administration.

Form Supplied: 10.0-mg. tablets, in bottles of 30 and 100

Source. Schering Corp., Bloomfield, N. J.

#### PEMOPHYLLIN TABLETS

Description. Tablets containing the ophylline sodium glycinate

Indications: Useful in conditions amenable to theophylline therapy such as bronehial asthma. augina, heart failure, and dyspnea.

Administration. I to 3 tablets every four to six lionis, preferably with water, after meals.

Form Supplied. Bottles of 100 and 1000. Source. Pitman-Moore Co., Indianapolis, Ind.

#### PERAZIL CREAM

Description: Cream containing 1% chlorevelizing hydrochloride in a non-greasy ointment base

Indications. As an antihistaminic and antipruritic

Administration: As directed by physician. Form Supplied. 1-ounce tubes.

Burroughs Welleome & Co. (U. S. A.),

Inc., Tuekalioe, N. Y

#### PHENERGAN

Description: A long acting antihistaminic, for nighttime do-age

Indications: For all conditions in which antihistaminic therapy is indicated such as urticaria, hay fever, asthma, angio-neurotic edema, and allergic rhinitis.

And Administration: As directed by physician Form Supplied: Bottles of 100 12 5-mg tablets Source: Wyeth, Inc., Philadelphia, Pu.

#### PYRIBENZAMINE SOLUTION FOR INJECTION

Description: Antihistaminie parenteral solution eontaining: pyribenzamine (tripelennamine) hydrochloride, 25 0 mg. per ec.

Indications: For use in conditions such as trans-



fusion reactions, serum sickness, penicillin sensitivity and bronehial asthma.

Administration: Intravenous or intramuscular route, as directed by physician.

Form Supplied: Ampuls of 1 ec. and cartous of 5. Source: Ciba Pharmaceutical Products, Inc. Summit. N. J.

#### SOLGANAL

Description: An organic, non-ionizing compound. containing approximately 50 per cent of gold susbended in oil.

Indications: Treatment of active rheumatoid arthritis.

Administration: Intramuscular injection-10 mg. the first week; 25 mg. weekly for the next two weeks; then 50 mg. weekly until a total of 1 Gm has been given. Fifty milligrams are then given every third or fourth week indefinitely according to individual requirements.

Form Supplied: Ampuls of 10, 25, or 50 mg. in 1.5-ee. boxes of 1 or 10; and 10-cc. multiple dose vials of 10, 50, or 100 mg. per ee.

Source: Schering Corp., Bloomlield, N. J.

#### SULAMYD

Description: Tablets, each containing suffacetamide. 0.5 Gm.

Indications: Treatment of neute pyelitis.

Administration: Adults: 2 tablets three times daily after meals Therapy should be continued for several days after urinary tract infection appears to have cleared. Children: 0.06 Gm. per Kg. of body weight per 21 hours. Total daily dose should be divided into three parts and given after meals.

Form Supplied: Bottles of 100 and 1000 Source: Schering Corp., Bloomfield, N. J.

#### SULFAMETHAZINE TABLETS

Description: Soluble, systemic sulfonamide in tablet form, containing 3.0 Gm. sulfamethazine.

Indications: For systemic and urinary tract infections.

Administration: According to age, upon direction of physician.

Form Supplied: Bottles of 100 and 1000 0.5-Gu tablets.

Source: Sharp & Dohme, Inc., Philadelphia, Pa

## PRESCRIPTION PRODUCTS

This monthly listing of new prescription products is designed for easy insertion in a ring binder. Simply lift out the eight pages, punch holes where marked, and slip into an 8<sup>1</sup>/<sub>s</sub> x 11 binder. A continuing six month index appears on the sixth and serenth pages for quick reference. Manufacturers are urged to send their new product information to the Executive Editor, American Phanmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C., for inclusion in this free copyrighted editorial service.

#### SULFA-SODA CAPSULES

Description: Capsules, each containing: sulfadiazine,  $7^1/2$  gr.; sodium bicarbonate, 5 gr.

Indications: Therapy requiring sulfadiazine and soda combination.

Administration: As directed by physician. Source: Norgate Laboratories, Forest Park, Ill.

#### TRISTERONE

Description: An aqueous suspension containing progesterone, 25.0 mg.; testosterone, 25.0 mg.; and crystalline estrone, 6.0 mg.

Indications: For arrest of functional utcrine bleeding.

Administration: As directed by physician.

Form Supplied: Packages containg 3 tubes and 3 sterile needles.

Source: Wyeth, Inc., Philadelphia, Pa.

#### TUSSATE

Description: Liquid, containing an antihistaminic, prophenpyridamine maleate, combined with d-amphetamine sulfate, chloroform, and menthol.

Indications: Treatment of coughs of allergic origin.

Administration: As directed by physician.

Form Supplied: Pint and gallon bottles.

Source: Pitman-Moore Co., Indianapolis, Ind.

#### VENTRILEX KAPSEALS

Description: Kapscals, each containing: crystalline vitamin B<sub>12</sub>, 10.0 micrograms; concentrated extract of stomach, 0.3 Gm.; liver concentrate, 0.1 Gm.; folic acid, 2.0 mg.; ferrous sulfate, 0.2 Gm.; and ascorbie acid, 50.0 mg.

Indications: For treatment of many types of anemia, especially those of combined nature.

Administration: As directed by physician. Form Supplied: Bottles of 100 and 1000. Source: Parke, Davis & Co., Detroit, Mich.

#### VERTRINITE COMPOUND ELIXIR

Description: Solution, each fluidounce containing: phenobarbital sodium, 2 gr.; F. E. Cascara sagrada aromatic, 60 mins.; sodium nitrite, 8 gr.; colloidum veratrum, 12 mins.; and aromatics, q.s.

Indications: For prompt and sustained relief of hypertension.

Administration: One teaspoonful three times daily before meals. If necessary, repeat dosage at bedtime.

Form Supplied: Pint and gallon bottles.

Source: Norgate Laboratories, Forest Park, Ill.

#### **VIDAC**

Description: Drop combination of vitamins A, C, and D in an aqueous solution.

Indications: Provides sufficient vitamin intake for normal growth and counterbalances avitaminosis in cases of poor intestinal absorption.

Administration: As directed by physician.

Form Supplied: 15- and 30-cc. bottles with  $\operatorname{grad} u$ -ated dropper.

Source: Endo Products, Inc., Richmond Hill, N. Y.

#### ZYMELOSE TABLETS

Description: High viscosity hydrophilic cellulose derivative with Brewer's Yeast.

Indications: For functional constipation.

Administration: As directed by physician.

Form Supplied: Bottles of 84-, 200-, 1000-, and 70-Gm. granules.

Source: Otis E. Glidden & Co., Inc., Waukesha, Wis.

#### New Jelly Form For Nasal Item

Winthrop-Steams Inc. has recently introduced Nco-Synephrine and Thenfadil, decongestant and antihistaminic preparation, in a light water-soluble jelly form to facilitate intranasal administration.

(Continued on next page)



Administration: After initial standardization of patient by means of Orcton injections, patients may be maintained on one-half to one 10.0-mg. tublet daily. In some cases, one-half tablet three times weekly will be sufficient. Tablet should be placed well into the lower buccal space, adjacent to the buccal surface of the gams, opposite the first molor tooth. Mid-morning, mid-afternoon and before retiring are best times for administration.

Form Supplied: 10.0-mg, tublets, in bottles of 30 and 100.

Source: Schoring Corp., Bloomfield, N. J.

#### PEMOPHYLLIN TABLETS

Description: Tablets containing the ophylline sodium glycimate.

Indications: Useful in conditions amenable to the ophylline therapy such as bronchial usthmu, augina, heart failure, and dyspaca.

Administration: I to 3 tablets every four to six hours, preferably with water, after meals.

Form Supplied: Bottles of 100 and 1000. Source: Pitman-Moore Co., Indianapolis, Ind.

#### PERAZIL CREAM

Description: Cream containing 1% chloreyelizine hydrochloride in a non-greasy ointment base.

Indications: As an antihistaminic and anti-practic

Administration: As directed by physician.

Form Supplied: 1-ounce tubes.

Source: Burroughs Wellcome & Co. (I., S. A.), Inc., Tuckulioc, N. Y.

#### PHENERGAN

Description: A long acting antihistaminic, for nighttime dosage.

Indications: For all conditions in which antihistaminic therapy is indicated such as articoria, hay fever, asthma, angio-neurotic edema, and allergic chimitis.

Administration: As directed by physician.

Form Supplied: Bottles of 100 12.5-mg, tablets, Source: Wyeth, Inc., Philadelphia, Po.

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Description: Antihistaminic parenteral solution containing: pyribenzamine (tripelennamine) hydrochloride, 25.0 mg. per cc.

Indications: For use in conditions such as trans-



fusion reactions, serum sickness, penicillin sensitivity and brouchiol asthma.

Administration: Intravenous or intramuscular route, as directed by physician.

Form Supplied: Ampuls of 1 cc. and cartons of 5.
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Administration: Intramuscular injection—10 mg, the first week; 25 mg, weekly for the next two weeks; then 50 mg, weekly until a total of 1 Gm, has been given. Fifty milligrams are then given every third or fourth week indefinitely according to individual requirements.

Form Supplied: Ampuls of 10, 25, or 50 mg, in 1.5-cc, boxes of 1 or 10; and 10-cc, multiple dose vials of 10, 50, or 100 mg, per cc.

Source: Schering Corp., Bloomfield, N. J.

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Description: Tablets, each containing suffacetamide, 0.5 Gm.

Indications: Treatment of neute pyelitis.

Administration: Adults: 2 tablets three times daily after meals. Therapy should be continued for several days after urinary tract infection appears to have cleared. Children: 0.06 Gm. per Kg. of body weight per 24 hours. Total daily dose should be divided into three parts and given after meals.

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Indications: For arrest of functional uterine bleeding.

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Form Supplied: Packages containg 3 tubes and 3 sterile needles.

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Indications: For treatment of many types of anemia, especially those of combined nature.

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(Continued on next page)

### Other New Products

(Chemicals, clinical trial drugs, diagnostic aids, and equipment for the retail and hospital pharmacy)

#### Analytical Pocket pH Meter

A pocket-size pH meter and companion probe unit, which will permit instant pH determinations anywhere, has been recently introduced. Use of this meter climinates "grah" samples and trips to the laboratory for analysis.

Completely self-contained, with batteries, in a bakelite case 3" x 5"/1" x 2"/2", this instrument is furnished, camera fushion, in a case with plastic tubes of buffer KCl solutions. The calonnel and glass electrodes are combined with the sample holder in a single polyethylene probe unit. A sample volume of only 0.5 ml. is required.

The meter is scaled from 2 to 12 pH, and a simple adjustment gives readings from 0 to 14. Accuracy of 0.1 pH is obtainable. Hearing-aid type batteries provide up to 1300 hours of operation. The electrometer tube, switch and input connector are scaled in a single unit to ensure freedom from high humidity difficulties. The one-knob control and continuous reading features of this instrument simplify operation for nutrained personnel. Grounded samples can be directly measured because of no external power connections. The instrument and electrode are completely shielded.

Manufactured by: Analytical Measurements, Inc., Chatham, N. J.

#### "Hypospray" Jet-Injector

Availability of the "Hypospray" Jet-Injector, an instrument for giving an injection without a needle, was recently announced by E. R. Squibb & Sons. This new device sends a tiny jet at high velocity through the skin to the desired depth for intrumusenlar or subentaneous injection.

The "Hypospray" Jet-Injector is a precision instrument which can be adjusted to the conditions required for each injection for accuracy of dosage and control of depth of penetration. It is a little smaller than an ordinary two-cell flushlight and weighs about the same.

Since no part of the instrument comes in contact with the mediention to be injected, it does not require sterilization. "Hypolil" cartridges holding the mediention are filled under sterile conditions and delivered in a hermetically scaled aluminum outer container. "Hypofils" are now available in a wide variety of medications including antibiotics and nurceotics.



#### PRESCRIPTION PRODUCTS

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# the nation's health

yesterday

today

tomorrow

The many activities of the Public Health Service are seen in this brief extract from the Service's 73-page report.

RESEARCH, medicine, and public health have been moving slowly toward a new synthesis in theory and practice. The focus of this synthesis is man himself. In past epochs, scientists and practitioners alike have focused their attention chiefly on the diseases to which man is heir; or on particular parts of the human body; or on special factors in man's environment. Now they are coming to view all these separate parts as a whole. At the same time, they are broadening their perspective to include man's social environment as an important influence upon health and disease.

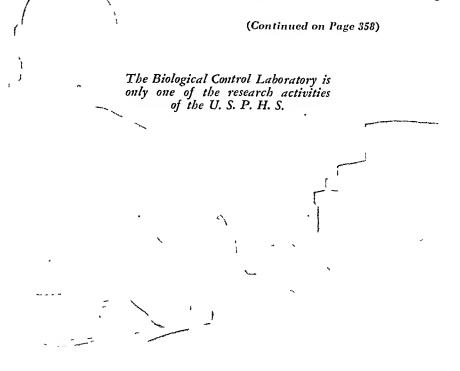
With the advance of biochemistry and biophysics during the past 30 years, there have been vast improvements in the methods, measurements, and instruments available to medical

scientists. These tools have made it possible for scientists in highly specialized fields to bring about a closer integration of their disciplines Some of the most dramatic advances in recent years have been the result of just such a team approach to the study of man—or of a specific problem in human health.

The research programs of the Public Health Service are founded upon this principle of teamwork. In the laboratory, the hospital, or on the field, scientists of the Public Health Service, along with their colleagues in other institutions, are coming to rely on one another for special knowledge or skills, to share facilities, and to pool their results as one great contribution to the health, productivity, and general well-being of mankind.

#### Our 1949 Health Record

Our health record was good in 1949, even though there is still plenty of room for improvement The general death rate has been declining







Field sanitation and testing is little known, but a very important part of the department's annual health work

Public Health . . . . . from page 357

slightly each year for the past 10 to 20 years. In 1919, it declined again: from 9.9 per 1,000 population in 1948, to 9.7 per 1,000. Although more babies were born in the United States in 1949 than in any year except 1947, fewer infants died in the first year of life. Deaths from chronic diseases showed little change from the 1948 figure, although mortality from these diseases has been mounting with our growing and "aging" population.

About 3.7 million babies were born in 1949. At the same time, death rates among infants and mothers again declined. In 1949, the infant mortality rate was 31 per 1,000 live births and the maternal mortality rate was 9 per 10,000 live births. The birth rate was 24.1 per 1,000 population as compared with 24.2 in 1948.

Heart disease and cancer still held first and second places in the list of most frequent killers. These two causes together accounted for half of the 1,446,000 deaths from all causes in 1949. The death rate from heart diseases was 20 per cent higher than in 1940; and the cancer death rate was 15 per cent higher.

Fewer cases of diphtheria, influenza, malaria, scarlet fever, typhus fever, whooping cough, and smallpox were reported in 1949 than in any other year. In contrast, new highs were reported for chickenpox, amebic dysentery, and poliomyclitis.

As predicted in the 1949 report, the polio epidemic of that year produced between 40,000 and 45,000 cases; 42,173 were reported. Nine States and the District of Columbia now report cases of poliomyelitis so as to show whether the disease resulted in paralysis or not. Health agencies need such information in order to estimate the kinds of health services that will be needed in the community to take care of an epidemic. Of the 8,400 cases reported from the nine States and the

District of Columbia, 47 per cent were paralytic; about 40 per cent were non-paralytic; and 13 per cent were inspecified.

#### A New Era in Medical Research

In the spring of 1949 came the dramatic announcement by American scientists that cortisone and ACTH (adrenocorticotropic hormone) are effective in the treatment of rheumatoid arthritis and other rheumatic diseases. This discovery brought immediate hope to millions of sufferers from these ailments; but medical scientists saw even greater hope in the discovery.

By the close of 1950, scientists in many parts of the country were testing the effectiveness of cortisone and ACTH in no less than 50 diseases. Miniufacturers had gone far toward solving the formidable problems of producing the substances in sufficient quantities for research and treatment. Work had begun in many laboratories on the synthesis of new biochemical substances, thus opening a new era in chemotherapy after its recent triumphs in diseases caused by protozoa and bacteria.

(Editor's Note: For the current clinical status of ACTH, see page 296, May, Practical Pharmacy Edition. Cortisone progress is reviewed on page 316 of this issue.)

The interest of the public and the professions in cortisone and ACTH and in the new era of medical research now opening has brought about another advance in our health services. The Eighty-first Congress set aside a special fund in the Public Health Service's 1951 budget to use in expanding research on cortisone, ACTH, and related compounds. Congress also authorized the Public Health Service to establish a broad program of research, aid to research and professional education, and health services in arthritis, rheumatism, and other metabolic diseases. The new law also established a program on the study of nerve diseases, such as cerebral palsy, multiple sclerosis, and blindness.

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#### Increasing Our Health Resources

Health personnel is our most important health resource. We need adequate numbers of research scientists, physicians, dentists, nurses, engineers, professional educators, and trained workers in related fields. Public Health Service fellowships for young scientists and grants to professional schools for the training of medical and dental students are helping to increase our supplies of some of these essential workers. Grants to the States also help to train public health personnel.

The goal of adequate hospital and health facilities is being attained gradually through the National Hospital Construction Program. By the end of June 1950, a total of 65,000 hospital beds and 250 health centers were being added to our health resources. These facilities are distributed among 1,300 projects, more than 300 of which have been completed.

#### **Expanding Health Services**

State and local health departments expanded their services to the public by an increase of about \$15 million in the fiscal year 1950. The total expenditure was \$231 million, of which the Federal Government provided \$45 million in grants; State governments provided \$96 million and local governments, \$90 million. The new funds in 1950 were spent chiefly to increase and strengthen local health services. Next priorities went to the control of cancer, heart disease, and other chronic ailments, and to expand community mental health services.

#### Toward a Healthier World

Winning a healthier world is one of the basic goals of our country's total effort for worldwide peace and freedom. During 1950 the United States demonstrated more than ever our determination to help the people of underdeveloped areas solve their own health problems.

Health missions, sponsored by the Economic Cooperation Administration, the Department of State, or the Public Health Service, brought direct help from the United States to many distant lands. American experts and institutions, including both private and governmental agencies, participated in programs of the World Health Organization, the Pan American Sanitary Burcau, and other international agencies. In May 1950, Congress passed legislation authorizing the President's long-range program of technical assistance to underdeveloped areas: the Point

Four program. Many health projects have been planned under this program which will make it possible for the people in some of the world's most disease-ridden areas to learn and apply modern public health methods.

#### A Brief Business Report

The Public Health Service in the fiscal year 1950 administered a total of \$319 million in appropriations and authorizations. Sixty-five per cent of this sum was allocated in grants to agencies, institutions, and individuals outside the Federal Government. Six per cent was allocated to the construction of needed facilities for the Public Health Service. The remaining 29 per cent covered the entire operations of the Service—including the operation of its hospitals and medical care programs, quarantine service, demonstrations, research activities, technical aid to the States, and administration of grants.

The Public Health Service staff totaled about 16,300 full-time and 747 part-time employees including consultants and members of the National Advisory Council.

The Commissioned Corps of the Public Health Service comprised 1,185 officers of the regular corps and 967 reserve officers in June 1950. Commissioned personnel include physicians, dentists, scientists, engineers, sanitarians, nurses, dietitians, pharmacists, and physiotherapists.

#### Education for Health

Good health, in its deepest sense, is the result of a partnership between the individual and the community in which he lives. Most people will support essential health services and will practice desirable habits of personal hygiene to the extent that they understand basic health principles. The process by which people acquire the knowledge and gain the understanding is called health education.

Helping State and local health agencies to develop educational programs in the communities is an important function of the Public Health Service. The Service also assists voluntary health agencies to enrich their educational programs and to make their educational materials more effective. During the year, the Public Health Education Division assisted 28 States to strengthen their programs in this field. As one immediate result, six States worked out better methods for reaching people living in rural areas and intensified their health council activities.

The future is hopeful for public health in the United States. The advances of a single year give us confidence to push forward toward our major goals.

## NATIONAL DEFENSE AND

#### CONGRESS VOTES COMPROMISE S-1

The Senate and House have voted final approval of legislation extending the Draft Act and laying the ground work for a permanent universal military training program.

The legislators agreed to the compromise version of the long-debated military manpower bill, which makes many changes in the draft system. Although not in full accord as to the final program of universal military training and the problem of limitation of service to twelve months for World War 11 veterans called to duty as reservists, the agreed compromises are

- 1 Lower the draft age from 19 to 18<sup>1</sup> 2 years but require that local draft boards first take all available men from 19 through 25.
- 2. Lower the physical standards to the World War II low point of January, 1945, and lower the mental test minimum score from 70 to 65 in order that 150,000 men now categorized as 1-F may be inducted.
  - 3. Extend the draft law to July 1, 1955.
  - 4. Limit total military strength to 5,000,000.
- 5. Set the minimum age for universal military training, in the event such training is an eventuality, at 18
- 6. Require conscientions objectors to take jobs supporting the defense effort.

The compromise bill also provides that men who are drafted in this manner shall subsequently be required to serve in the Organized Reserve or the National Guard for a period of six years. Thus the bill supplies a hitherto lacking provision for a trained reserve force in case of need.

The new legislation also gives the President anthority to provide for the deferment from training and service in the Armed Forces, or from training in the National Security Training Corps, of persons whose activity in pharmacentical endeavors is found to be necessary to the maintenance of the national health, safety or interest. Such deferment will be based on the individual status of the pharmacist in relation to other pharmacists in his community. Pharmacy students may receive postponement of induction and deferment from military service in order to complete college work.

In regard to universal military training, the bill provides for creation of a five-man commission which, with Department of Defense approval, is to submit a training program to the Armed Services Committee within four months following confirmation of this commission's members by the Senate.

The Armed Services Committees must then report to Congress on this program within the next forty-five days. Finally, if the program is then approved by vote of both houses, it will be put into operation at any time thereafter when the President or Congress so decides,

Within hours after the Senate had acted on the bill, Secretary of Defense George C. Marshall told the 1951 graduating class of the United States Naval Academy that to have the nation maintain a "respectable military posture" at all times rested on a workable universal military training program.

#### NEW KOREAN VA BENEFITS

The Veteraus Administration has spelled out the benefits available to servicemen who went on active duty after the outbreak of the Korean conflict, including those benefits provided by Public Law 28.

Under the new law, persons who served on or after June 27, 1950, may now receive medical, hospital and domiciliary care, and burial benefits on the same basis as veteraus of World War II. Also, such persons and their dependents are cligible for compensation and pension under the same conditions as those who served in World War II.

#### Hospitalization

A veteran who needs hospital care for a nonservice-connected disability may get it from VA if he is muchle to secure it at his own expense and if there is a bed available in a VA hospital.

Heretofore, veterans of the Korean fighting who had no World War I or World War II service were entitled to VA hospitalization for non-service-connected disability only if they were receiving compensation for a service-connected disability or if they had been discharged from service because of a service-incurred disability.

#### Domiciliary Care

The new law makes such veterans eligible to enter VA domiciliary "homes" if they are suffering from permanent disabilities or are incapacitated from earning a living, and are unable to defray expenses of domiciliary care.

## SECURITY

#### Prosthetic Appliances

As in the past, veterans may be entitled to prosthetic appliances for a service-connected condition, for a disease or injury for which hospitalization has been authorized, or as an incident of domiciliary care.

#### Disability Compensation

The new law provides for full wartime disability compensation rates for all veterans with service-connected disabilities that occurred on or after June 27, 1950, whether the veterans served in Korea or in any other part of the World including the United States.

#### Disability Pensions

Public Law 28 provides pensions for veterans permanently and totally disabled for reasons not traceable to military service. Before the law was passed, peacetime veterans were not entitled to pensions at all; instead, pensions were limited to those with war service.

#### Public Law 16 Training

Vocational rehabilitation training for disabled veterans—originally a benefit for World War II veterans provided under Public Law 16—was extended late in 1950 to include many veterans disabled on or after June 27, 1950.

These two qualifications must be met:

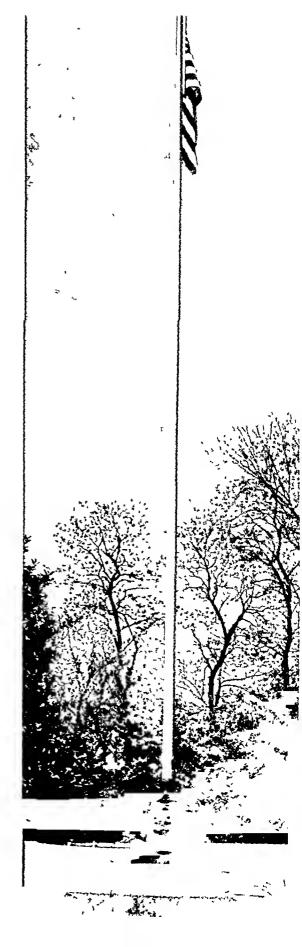
- 1. The veteran must be in need of training to overcome the handicap of his disability.
- 2. The disability, compensable at wartime rates, must have resulted directly from armed conflict or during extra-hazardous service. All service in the Pacific area, as well as some service in the United States, meets at least one of these qualifications

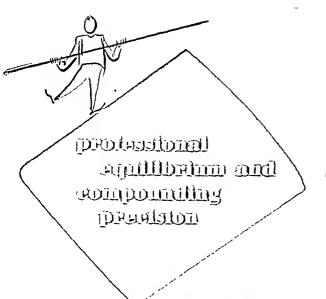
#### **Indemnity Payments**

Under the Servicemen's Indemnity and Insurance Acts of 1951, passed April 25, 1951, servicemen are automatically covered against death in active service for \$10,000—less any National Service Life Insurance or U. S. Government Life Insurance in force at time of death.

This free indemnity protection continues for 120 days after separation from service for those called to active duty for more than 30 days.

(Continued on Page 365)





by Samuel W. Goldstein, Ph.D. and Albert M. Mattocks, Ph.D.

## Mow to Weigh Accurately

Part III of this special article from the laboratory of the American Pharmaceutical Association on compounding precision reviews the proper technique of weighing to insure complete accuracy in prescription compounding. Part II, on balance testing, appeared in the May issue. Part IV, on liquid measuring, will appear next month.

A BSOLUTE accuracy in weighing, under prescription-department conditions, is an elusive will-o'-the-wisp. Nevertheless, a knowledge of the properties and limitations of the balance, weights, and technique should enable us to weigh even relatively small quantities of material within reasonable limits of deviation.

The average housewife watches the butcher's scale when he weighs the meat she purchases. Imagine her protest should the pointer indicate a shortage of 3 onnees in a purchase of 3 pounds of steak. She would very likely recognize such a shortage without having seen the indicator, just by the "feel" and appearance of her purchase. Now this represents an error of less than 6.5 per cent, but we would agree that the complaint would be justified. The maximum sensibility reciprocal (weight required to move indicator one division on index) allowed by the National Bureau of Standards for a scale with a capacity of 50 pounds is 1.25 ounces. Most State or City scale-checkers demand that such a limit must be met. This allows an error in the scale of 2.6 per cent when 3 pounds are weighed.

The N.B.S. allows a maximum sensibility reciprocal of 13 mg. (0.2 gr.) for a Class A prescription balance, which can have a capacity up to 120 Gm. (4 ounces). All pharmacists should

be their own balance-checkers and should demand at least this performance of their balances. (See p. 293, this JOURNAL, May.) We will base our statements on the assumption that a properly used Class A balance will show an index pointer deflection of one division with a change in weight of 10 mg. (1/6 gr.).

## HOW LITTLE CAN BE WEIGHED ACCURATELY?

If we maintain that a careful technician, working with an acceptable Class A balance, should achieve an equilibrium with each weighing so that no more deflection than a single space on the index scale would be tolerated, we would note the following conditions. A one-space deflection is equivalent to 10 mg. ( $^{1}/_{6}$  gr.). If we allow the 10 mg. deviation to account for a 5 per cent error, the smallest amount that should be weighed directly is 200 mg. (3 gr.). If a 10 per cent error is allowed, then 100 mg. (1.5 gr.) could be weighed directly.

It is possible to weigh amounts smaller than 100 mg, within reasonable limits of accuracy if special precautions are taken. If the balance indicator is read to the nearest ½ division, if tared watch glasses are used to avoid retention by weighing papers, and if the balance lid is

elosed to avoid drafts, the operator might detect a change in the rest point corresponding to 5 mg This would allow weighing 50 mg. with an error of about 10 per cent. The safer and better proeedure to follow when amounts smaller than 100 mg. (1.5 gr.) are to be dispensed, utilizes the preparation of a dilution of a larger weight of the ingredient with laetose for dry products (eapsules, powders, etc.), or with a liquid solvent or vehicle for solutions or other liquid dosage forms. A weighed or measured amount of the dilutions. eontaining the desired amount of the ingredient. ean be used. For example: A 10 per eent dilution of a medicinal ingredient ean be prepared by weighing 200 mg. (3 gr.) of the material and mixing it thoroughly with nine parts or 1.8 Gm. (27 gr.) of laetose. Each 200 mg. (3 gr.) of the mixture would eontain 20 mg. (0.3 gr.) of the ingredient. The smallest amount of material weighed at any time is 200 mg. (3 gr.). When a liquid diluent is used, the 10 per cent concentration is made weight to volume; so that one-tenth of the prepared volume will contain one-tenth of the weighed amount of the ingredient.

#### USE OF POWDER PAPERS

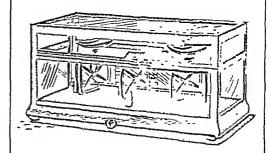
The practice of placing powder papers on balance pans is general, and there are good reasons for their use in this manner. The papers protect the pans from chemical action with some medicinals, and eliminate the need for repeatedly washing the pans. If a new paper is used on the drug pan for each prescription, contamination is prevented. The paper also serves as a transfer funnel.

Powder papers used for weighing should have a glazed surface, so that no appreciable amount of the weighed material will adhere to the paper. This is especially important when small amounts are to be weighed. The papers should be about  $3 \times 4^{1/2}$  inches in order to have a maximum weighing area without touching any part of the balance beside the pans. The papers should be creased and then flattened before placing on the pans. If desired, tared watch glasses can be used on the balance pans instead of papers.

#### WEIGHING TECHNIQUE

What is the most exacting technique the pharmaeist can use with his prescription balance? Let's discuss a weighing procedure.

1. Place the papers on the balance pans, and then adjust the balance so that the index pointer is at zero. Use the leveling screws on the Torsion balance, and the slide weight or adjusting screw on the Troemner balance for this purpose. Why



### Authors' Summary

A pharmacist is as accurate as his balance. (See page 293, Practical Pharmacy Edition, May, 1951.)

Do not weigh less than 0.65 Gm. (10 gr.) on a Class B balance.

Do not weigh less than 100 mg. (1.5 gr.) directly on a Class A balance. Prepare a dilution with a powder or prepare a stronger solution, then weigh or measure the correct fractional portion.

Urge for speed is a factor limiting precision in compounding.

Always check equilibrium after papers are placed on pans.

Arrest oscillations before changing pan contents.

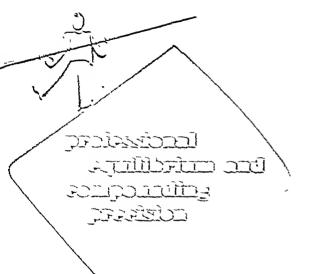
Every pharmacist should be his own balance checker.

Every assayable product compounded by pharmacy students should be tested to determine precision of work.

Bc accurate. Be careful.

is this step important? Powder papers taken consecutively from the same box can vary in weight by as much as 65 mg. (1 gr.). If equilibrium is not established after the papers are placed on the pans, an error of more than 30 per eent can result in weighing 200 mg. (3 gr.) of material. Establishing equilibrium would also eliminate the improbable but possible error of neglecting to put papers on both pans. The lid of the balance can be closed during the establishment of equilibrium to avoid the effect of air currents.

(Continued on Page 364)



by Samuel W. Goldstein, Ph.D. and Albert M. Mattocks, Ph.D.

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If we maintain that a careful technician, working with an acceptable Class A bulance, should achieve an equilibrium with each weighing so that no more deflection than a single space on the index scale would be tolerated, we would note the following conditions. A one-space deflection is equivalent to 10 mg, (3 gm). If we allow the 10 mg, deviation to account for a 3 per cent error, the smallest amount that should be weighed directly is 200 mg, (3 gm). If a 10 per cent error is allowed, than 100 mg, (4.5 gm) could be weighed directly.

It is possible to weigh amounts smaller than 100 mg, within reasonable limits of accuracy if special precunitous are taken. If the balance indicator is read to the nearest 1/2 division, if taxed worth plasses are used to avoid retention by weighing papers, and if the balance 114 is

closed to avoid drafts, the operator might detect a change in the rest point corresponding to 5 mg This would allow weighing 50 mg, with an error of about 10 per cent. The safer and better procedure to follow when amounts smaller than 100 mg. (1.5 gr.) are to be dispensed, utilizes the preparation of a dilution of a larger weight of the ingredient with lactosc for dry products (capsules, powders, etc.), or with a liquid solvent or vehicle for solutions or other liquid dosage forms. A weighed or measured amount of the dilutions. containing the desired amount of the ingredient, can be used For example: A 10 per cent dilution of a medicinal ingredient can be prepared by weighing 200 mg. (3 gr.) of the material and mixing it thoroughly with nine parts or 1.8 Gm. (27 gr.) of lactose. Each 200 mg. (3 gr.) of the mixture would contain 20 mg. (0.3 gr.) of the The smallest amount of material weighed at any time is 200 mg. (3 gr.). When a liquid diluent is used, the 10 per cent concentration is made weight to volume, so that one-tenth of the prepared volume will contain one-tenth of the weighed amount of the ingredient.

#### USE OF POWDER PAPERS

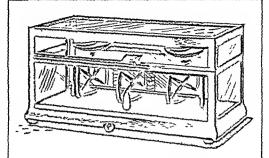
The practice of placing powder papers on balance pans is general, and there are good reasons for their use in this manner. The papers protect the pans from chemical action with some medicinals, and eliminate the need for repeatedly washing the pans. If a new paper is used on the drug pan for each prescription, contamination is prevented. The paper also serves as a transfer funnel.

Powder papers used for weighing should have a glazed surface, so that no appreciable amount of the weighed material will adhere to the paper. This is especially important when small amounts are to be weighed. The papers should be about  $3 \times 4^{1/2}$  inches in order to have a maximum weighing area without touching any part of the balance beside the pans. The papers should be creased and then flattened before placing on the pans. If desired, tared watch glasses can be used on the balance pans instead of papers.

#### WEIGHING TECHNIQUE

What is the most exacting technique the pharmacist can use with his prescription balance? Let's discuss a weighing procedure.

1. Place the papers on the balance pans, and then adjust the balance so that the index pointer is at zero. Use the leveling screws on the Torsion balance, and the slide weight or adjusting screw on the Troemner balance for this purpose. Why



#### Authors' Summary

A pharmacist is as accurate as his balance. (See page 293, Practical Pharmacy Edition, May, 1951.)

Do not weigh less than 0.65 Gm. (10 gr.) on a Class B balance.

Do not weigh less than 100 mg. (1.5 gr.) directly on a Class A balance. Prepare a dilution with a powder or prepare a stronger solution, then weigh or measure the correct fractional portion.

Urge for speed is a factor limiting precision in compounding.

Always check equilibrium after papers are placed on pans.

Arrest oscillations before changing pan contents.

Every pharmacist should be his own balance checker.

Every assayable product compounded by pharmaey students should be tested to determine precision of work.

Be accurate. Be careful.

is this step important? Powder papers taken consecutively from the same box can vary in weight by as much as 65 mg. (1 gr.). If equilibrium is not established after the papers are placed on the pans, an error of more than 30 per cent can result in weighing 200 mg. (3 gr.) of material. Establishing equilibrium would also eliminate the improbable but possible error of neglecting to put papers on both pans. The lid of the balance can be closed during the establishment of equilibrium to avoid the effect of air currents.

(Continued on Page 364)

#### Professional Equilibrium

• • • • • • • • • • • • • • • from page 364

2. With the balance at arrest, open the balance lid, and place the desired weights on the right-hand pan and/or the weighbeam. Place the approximate weight of the material to be weighed on the left-hand pan, then release the arrest to observe whether too much or too little was added. Remove or add material, using a spatula, arresting the balance each time a transfer is made. When a release of arrest shows that equilibrium is established, the balance should be arrested, the balance lid closed, and the arrest released to check the equilibrium. It is generally more convenient to operate the arresting knob with the left hand.

Why is it necessary to stop or arrest the oscillating mechanism of the balance so many times? Simply to protect the delicate mechanism of the balance. If, accidentally, a large amount of material, the bottle, bottle cap, or spatula should fall on the pan, no serious damage would likely result to the balance when the mechanism is arrested.

Most pharmacists received instruction in quantitative analysis during their academic training. One of the first things they were taught was the care and use of the analytical balance. These pharmacists will recognize that we have tried, in very simple terms, to apply the professional training of the pharmacist as an analyst to the most important professional activity of the practicing pharmacist, his prescription compounding.

#### FACTORS LIMITING PRECISION

We recognize the fact that certain factors limit the extent of attainable precision when small amounts of material are weighed at the prescription counter. The loss or gain of moisture by materials in containers that are often opened cannot be readily detected without drying tests. This can be overcome to some extent by purclassing or storing efflorescent or deliquescent materials in tightly sealed small containers. A factor which is difficult to control is the urge for The pharmacist who leisurely checks his stock and calmly does other chores during slack periods in his prescription department, too often becomes tense and hurried when the prescriptions arrive in groups and pile up. The pharmacist also finds it most difficult to convince some patrons to be satisfied to receive the compounded product in an hour or two. This is often true with patrons who were ill several days before they called the physician, who arrived four hours

#### THE EDUCATORS' RESPONSIBILITY

Educators are faced with the problem of having students compound a certain number of prescriptions of various types during each laboratory period. Some students always finish before others, and very often they turn in preparations that appear to be very good. The only way to determine the relative precision with which student products are compounded is to have every assayable product tested. If we fail to awaken in our pharmacy students the desire to do accurate work in the compounding laboratory, we can hardly expect the graduated pharmacists to heed an appeal for precision in compounding.

#### CONCLUSION

It is our hope that through an appreciation of the fundamental factors affecting precision in compounding, a wider application of professional skills will result in more accurately compounded prescriptions. This in turn could reduce the periodic criticism of our professional work. This criticism is especially disturbing when it results from investigations by non-pharmacists.

There are controllable factors that influence the accuracy of our compounding. The precise use of the balance is a major factor Let us try to control it within reasonable professional limits.

#### **O**bituary

#### Adolph F. Marquier

Pharmacy in the State of New Jersey suffered a serious loss in the death of Adolph F. Marquier who passed away on May 14 at his home in South Orange, New Jersey. Professor Marquier was a member of the Faculty of the New Jersey College of Pharmacy both before and after it merged with Rutgers University and was known to hundreds of New Jersey Pharmacists who obtained their instruction in pharmacy under him. He was engaged in retail pharmacy for practically his entire adult life and was an outstanding member of his community who was called upon frequently for services in civic and fraternal circles. He is survived by his widow and son, who was engaged in business with him, and a daughter.

#### National Defense . . . . from page 361

#### Aid for the Blind

VA provides special aid to veterans who are blinded and are entitled to compensation for service-connected disability. The blindness itself need not be service-connected.

#### Death Compensation

Unremarried widows, unmarried children and dependent parents may be entitled to death compensation payments at wartime rates if a veteran dies because of disease or injury incurred in line of duty on or after June 27, 1950. The unmarried children may be eligible if they are under 18, or if attending an approved school, are under 21.

#### Death Pension

Under the new law, eligible dependents of certain veterans who die of nonservice-connected ailments now may be entitled to death pensions.

At the time of his death, the veteran must have been receiving—or was eligible to receive—compensation for a service-connected disability (not necessarily the disability which caused his death). Or, having served at least 90 days on or after June 27, 1950 (or discharged sooner for a service-connected disability), the veteran at the time of death must have had a definitely ascertainable service-connected disability.

Eligible dependents include unremarried widows and unmarried children under 18, or under 21 if attending an approved school.

## DRUG AND PHARMACEUTICAL REQUIREMENTS SATISFACTORY

The drug and pharmaceutical industry appears to be in a good position to meet all public needs in case of a national emergency, members of the industry's advisory committee and the National Production Authority, U. S. Department of Commerce, agreed in a recent Washington meeting.

There are some raw materials nearing short supply and some shortages such as rubber and tin which may affect them to some extent, but the drug and pharmaceutical committee members said they face no acute problems at present.

Committee spokesmen urged that emphasis be placed on the essentiality of their industry and pointed out that their use of most scarce materials is minute. They reported they had received execllent cooperation from Government officials in meeting such problems as had arisen.

In this first meeting of the advisory committee, members discussed raw materials which may become scarce. Nicotinamide, used in vitamin products, was classed as perhaps the most likely supply trouble-factor. Glycerin and menthol also were mentioned, although it was pointed out that the glycerin supply situation seems to have eased.

## GENERAL ARMSTRONG CONFIRMED AS ARMY SURGEON GENERAL

The Senate has confirmed the Presidential nomination of Major General George E. Armstrong to be Surgeon General of the Army. He will serve for a period of at least four years. General Armstrong succeeds Major General R. W. Bliss, under whom he has served as deputy Surgeon General for the past four years.

General Armstrong, a native of Springville, Indiana, received his education at the University of Indiana, receiving his degree in medicine in 1925. He interned at Letterman General Hospital, San Francisco, California, and received his regular commission in the Medical Corps in 1926.

General Armstrong, after attending the Medical Field Service School and the Army Medical School, served at various Army posts in the United States. During World War II, he was assistant surgeon in the China-Burma-India theater of operations, and surgeon in the China theater.

He returned to this country in 1946, and was named Chief of Personnel in the Surgeon General's Office, Washington, D. C. In 1947 he became deputy to General Bliss.

He is a Fellow of the American College of Surgeons and a member of the House of Delegates of the American Medical Association.

#### NATIONAL SCIENCE FOUNDATION

The President early in June asked Congress to vote a supplemental appropriation for the fiscal year ending in June, 1952, which included \$14,000,000 for the National Science Foundation. In the President's request to Congress he stated, "In 1952 the Foundation will give first priority to a national policy for promotion of basic research and education in the sciences." It will also initiate a graduate fellowship program to increase the number of highly trained scientists and it will sponsor basic research on significant problems now receiving inadequate attention.

The Budget Officer of the Foundation stated he was not at liberty to disclose the money breakdown of the Presidential request until after Foundation officials testify before the appropriation committees of the Congress.

June, 1951



FROM THE SECRETARY'S DIARY
FOR MAY

Now leaving for Phoenix, Arizona, to address the state pharmaceutical association convention, after attending the annual meeting of the American Council on Education here with Deans Christensen and Foss of the A. A. C. P. Most of the past week spent at the hearings on the Durham bill before the House Committee on Interstate and Foreign Commerce. If the committee got nothing else out of these hearings, it now knows that Commissioner Dunbar stirred up much unnecessary trouble for physicians, pharmacists and patients and that Mr. Ewing could issue a clarifying ruling under the existing law.

After two most enjoyable days with Arizona pharmacists, leaving Phoenix late this evening for Washington. Yesterday at breakfast with Kappa Psi and later with Phi Delta Chi giving an A. Ph. A. message to each; also addressing the Arizona convention on current matters including the prescription refill problem. A carnival and barbecue at Bud's Barn last night and the banquet this evening were fine social affairs enjoyed with the Stewarts, the Bangs and many other Arizona friends. Newell Stewart has a well-organized and smoothly functioning association which is accomplishing great things, for the pharmacist of Arizona.

Back in Washington the past few days concentrating on the desk work and the many loose ends which have a tendency to become frayed during lengthy absences.

Now off on the "Congressional" to New York, stopping off at Newark, N. J., to pay a final tribute to Adolph F. Marquier who passed away after a life of dedication to the best interests of pharmacy in New Jersey both as a teacher and practitioner.

At breakfast in New York with Treasurer Schaefer, reviewing Association business and then to the University Club for the annual meeting of the American Foundation for Pharmaceutical Education, returning to Washington with Doctors Foss and Kantner in the late afternoon on the Pennsylvania.

This evening a most enjoyable dinner with Jack and Mrs. Heinz, who met us on arrival at Salt Lake City, and Dean and Mrs. Hiner. Later addressing the student body and faculty of the College of Pharmacy of the University of Utah and Utah pharmacists. A nocturnal visit to the beautiful new Heinz prescription shop which is a dream come true.

Visiting the University of Utah College of Pharmacy this morning and addressing the Utah convention this afternoon. All were shocked by the announcement of the Supreme Court on fair trade. Also inspecting facilities of Salt Lake City for an A. Ph. A. convention after 1952 and then off for Denver and Colorado Springs to the Colorado convention.

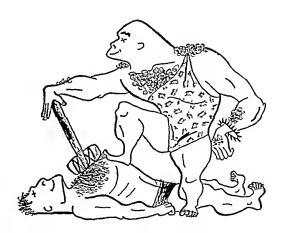
Departing for the East after nearly three days with Colorado pharmacists, addressing their state association convention at Colorado Springs on May 22 and being introduced to an ice cream breakfast on May 23, followed by a beautiful drive to view Pike's Peak from various angles and to enjoy the Garden of the Gods and other scenic wonders as guests of E. C. Fox, and then to Boulder with Dean and Mrs. Charles Poe to see the state university with its new college of pharmacy building and to address the alert student body there.

Back from Utah and Colorado, after a stop in Chicago to confer with A. M. A., N. A. B. P. and other groups on matters of mutual interest. The grounds around our building show their best Spring adornment and the desk is piled high with unfinished business.

Today a visit with Navy Surgeon-General Pugh, Admiral Owsley and Captain McCormick, who head the professional services in the Bureau of Medicine and Surgery of which pharmacy is a part, discussing the progress of pharmacy in this branch of the Armed Services and learning a lot.

Vol. XII, No. 6

# The battle of the **BULKS**



To you it must seem that every pharmaceutical house has recently marketed a "bulk" for use in constipation

The originators of CELLOTHYL—the first methylcellulose tablet—are truly flattered by the present widespread influx of similar bulk products, for imitation is an impressive tribute. However, none of the deviations and variations has attained the high degree of professional acceptance accorded Cellothyl since it was offered over 3 years ago as a significant advance in constipation correction.

In the midst of this battle of the bulks, it is easy to see why CELLOTHYL is the leader.

Compare its advantages: CELLOTHYL Other Bulks  $\square$ · studied at the Moyo Clinic for treatment of constipution? · found to correct both acute and chronic N N constipation in 92% of cases2  $\bar{\Box}$ · corrects years of constipation, beginning in days? य्वत्वित्वव्व · physiologically correct action produces soft, moist, easily passed stools causes no bloating or distention · not habit-forming · nontoxic, nonontigenic, hypoallergenic · does not interfere with vitamin absorption available in tablets and also in granule  $\square$ form for infants and children · occepted by the Council on Pharmocy and Chemistry of the American Medical Association **♂**  $\bar{\Box}$  steady volume builder  $\square$ · intensively advertised and detailed to physicions

#### CELLOTHYL Tablets (0.5 Gram)

size	your cost each	falr trade minimum
50's	S .60	S .89
100's	1.00	1,49
500's	4.00	5.95
5000's	32.00	48.00

#### CELLOTHYL Granules (for infants and children)

25 Gram	.54	.79
100 Gram	1.67	2.47

I. Gostraenterology 13:275, 1949. 2. N. Y. State J. Med. 48:1822, 1948.



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## Hew a.Ph.a. Members





THE ASSOCIATION EXTENDS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP DURING THE MONTH PRECEDING PREPARATION OF THIS ISSUE.

#### ALABAMA

Tubb, Proctor V., Birming-Whortnn, Opelika Tracy S., Jr.,

#### ARKANSAS

Crittenden, F. M., Fayetteville Eiden, Frank J., Jr., N. Little Featherston, L. R., Hot Springs Leonard, Loren J., Fayette-Ricketts, Glenn C., Fayetteville

#### CALIFORNIA

Ham, Charles W., Monterey Park Alfred W., Los Holmes Holmes, A. A. Angeles
Angeles
Kellogg, Dale B, La Jolla
Miller, Elmer L., Napa
Shepro, Herbert M., Los Shepro, Angeles

#### COLORADO

Armstrong, Frederick C., Boulder

#### GEORGIA

Hancoek, Marie J., Valdosta Narvell, W. P., Augusta Woodcoek, J. B., Gainesville

#### ILLINOIS

Dnle, J. Russell, Alton Gordon, Marris, Broadview McAnany, Matthew, Chicago Rush, Raymond, Marion

#### INDIANA

Beecher, J. Evelyn, Indianapalis Bikin, Henry, Indianapalis Poland, Llayd O., Indianap olis Smith, Benjamin A., Indiannpolia

#### LOUISIANA

Scallan, Donald A., Baton Rouge

#### MASSACHUSETTS

Alfard, David, Cambridge Ruckley, John A., Halyake Rathstein, Saul M., Framingham

#### MICHIGAN

Bailcy, Harold E., Detrait Canverse, Perry E., Lansing Grolle, Floyd A., Ann Arbor Guarnieri, Jahn A., Detroit Lasca, Herhert T., Detrait Lewand, Edward F., Detrait Puehkoll, David, Fort Custer

#### MINNESOTA

Goldner, Thor H., Minneapalis

#### MISSISSIPPI

Greene, James R., Gulfport McKenzie, J. D., Gulfport

#### MISSOURI

Shinn, Harold W., Jefferson City Smith, Harold W., Poplar Bluff

#### NEVADA

Sullivan, Ralph H., Renn

#### NEW MEXICO

McCann, Raymond J., Albuquerque

#### NEW YORK

Druskoff, Joseph, New York Fiorentino, Frank V., Belle-

Joss, Ira, New York
Krevald, Helga, New York
Levy, Sol, Syracuse
Loughhorough, Eldred C.,
Pittsford McGrath, Mrs. Inis, Bronx-

ville Perry, Tharnton D., St. Al-

bnus Stizza, John F., New York Way, Kenneth F., Pittsfard

#### NORTII CAROLINA

Colina, Gilberto D., Charlatte Callis, Daris G., Winston-Salem Darling, Andrew J., Asheville Spiatti, Dominic V., Fayetteville

#### OIIIO

Bartel, Richard C., Hamilton Cafferata, Louis, Cincinnati Cheffy, William B., Barnes-ville

Cowgill, Jane Anders, Calum-bus

Davidson, Leonard F., Cleveland Eisenmann, Emil A., Clevc-

land

Eling, Raymond F., Cinein-nati Hill, Albert C., Dayton

Horton, Hubert R., Mariemont Hottoian, Vnughn,

bridge Jnseph, Evelyn G., Cincin-

nati Kipp, Albert W., Findlay Micklethwaite, Homer J., Portsmouth

Nachman, Louis J., Colum-Needham, Wallace M., Cleve-

land
Oliver, Harold H., Marietta
Oliver, Margene, Defiance
Pake, Charles E., Akron
Polster, Leo A., Columhus
Scufzer, Sylvia, Bratenahl
Turner, George A., Ashtahula
Wallace, G. Wayne, Cuyanland Wallace, G

#### OREGON

Quisenberry, P. D., Salem

#### PENNSYI.VANIA Jendral, Paul P., Uniontown

RHODE ISLAND Udell, Harold G., N. Pravidence

#### TEXAS

Castolow, Roy M., Dallas Henry, Charles R., Dallas Marney, Hnustan, Jr., San Marcos

#### WASHINGTON

Hammarlund, Edwin R., Seattle Horite, Yoka, Scattle McDougall, Mary Ann, Se-

#### WEST VIRGINIA

Evnns, Du Pant A., Beckley

#### WISCONSIN

Boerner, Carl A., La Crosse Bruegger, Arthur II., Mil-waukee

Eggert, Flayd II., Keaosha Hogschler, William H., La Hoeschler,

Crasse
Kasmicki, Henry, Milwaukee
Kuchnl, Theodore C., Milwaukee Longfellaw, Narman J., La

Crosse
Meinzer, John M., Hales
Corners

Morse, Llewellyn A., Madisoa Schmauch, Henry D., La Crosse

Soell, Otta A., Sr., La Crosso Warsaw, Irvin B., Milwaukee

#### FOREIGN

Crusellas, Dr. Jose, Guaya-quil, Ecuador Kamal, Calcutta. India Harsley, Johs., Copenhagea, Denmark Smedmor, Ethel J., Ontario,

Canada Vnnderlinden, Pierre, Leo-poldville, Belgian Congo



#### Deceased Members

Furd, Wilbur S., Oconto, Wis, March 28, 1951 Freesc, Violet N., Denver,

Rennud, Eugene, Dearbarn, Mich., Dec. 18, 1950

Taylar, Augustus C. (life member since 1921), Wash, D. C., Jan. 12,

Tempel, George F., lrv-ington, N. J., Dec. 15.

A Career in Pharmacy and the Allied Sciences

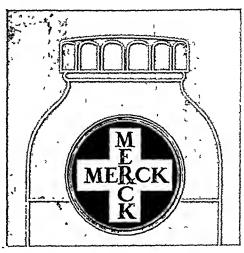
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Pharmacy, Chemistry, Bacterialogy and Bialogy affer apportunities far interesting and successful careers to yaung men and wamen. B.Sc. degree courses. Graduate study leading to M.Sc. and D.Sc degrees. Write for catalog ta

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Every chemical bearing the Merck label reflects the skill and experience acquired during 133 years of fine chemical manufacturing. Pharmacists know that "Merck" stands for purity, uniformity, and dependability. That's why the Merck label dominates prescription departments throughout the country.

## PRESCRIPTION CHEMICALS

Research and Production

for the Nation's Health



#### MERCK & CO., INC.

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#### STUDENT BRANCHES

ELECTION returns have been reported in the past month by a number of student branches. The branches and their new officers are:

University of Connecticut branch: Robert Elkin, president; John Cuff, vice-president; Rita Krawczyk, secretary; and Herbert Kleiman, treasurer.

Idaho State College branch: Paul Serafino, president; Dean Rebentish, vice-president; Sara Ewart, secretary, and Howard Johnson, treasurer.

University of Buffalo branch: Bradley Cherenzia, president; Donald Clark, vice-president; Nancy Brooks, secretary; and Sherman Waldman, treasurer.

Drake University branch: Dan E. Regan, president; Morton Gammerman, vice-president; Mrs. Mary Jo Hoover, secretary; and Natalie Stober, treasurer.

George Washington University branch: R. Edward Snell, president; Marvin Freedenberg, vice-president; R. H. Bryan, secretary; and Clifford W. Haack, treasurer.

Purdue University branch: George Brueggeman, president; Harold Mayner, vice-president; Patricia Miller, secretary; and James Kilpatrick, treasurer.

Temple University branch: Gerald Jackson, president; Joseph Sobkowiak, vice-president; Ruth Anne Levan, secretary; and Gabriel Popp, treasurer.

University of Mississippi branch: H. G. Everett, Jr., president; and Charles R. McDaniel, secretary-reporter.

University of New Mexico branch: Sally Masury, president; Keith Hinrichs, vice-president; John O'Shaughnessy, secretary; and Earl Weaver, treasurer.

State University of Iowa branch: Downing Sherrick, president; Leonard Ruback, vice-president; Donna Adams, secretary; and Carl Johnson, treasurer.

State College of Washington branch: William E. Johnson, president; Eugene L. Harris, vice-president; Murlaine S. Mellom, secretary; and C. F. Martin, treasurer.

Medical College of Virginia branch: George E. Foresman, president; Floyd F. Bennett, vice-president; Norman L. Hilliard, secretary; and Gerald W. Duffer, treasurer.

University of Georgia branch: M. H. Belcher, president; Harry L. Sutton, vice-president; Mary Compber, secretary; and Emory Veale, treasurer.

April 13 was the date of the regular monthly meeting of the St. John's University branch. Guest speaker at this meeting was Dr. Frederick Lascoff, a member of the New York State Board of Pharmacy.

University of Puerto Rico branch held a meeting April 12, in Puerto Rico, with Mr. Washington Llorens, delivering the main address. Mr. Llorens spoke on the growth, botany, pharmacology, and analytical tests and procedures used in identification, of the drug, Cannabis sativa.

The last meeting of the year for the University of Wisconsin branch was held April 24. Roger Fitzgerald, president of the branch, was elected president of District IV and was also chosen to represent the pharmacy student body at the national convention of the A. Ph. A., to be held August 26-31, in Buffalo, N. Y.

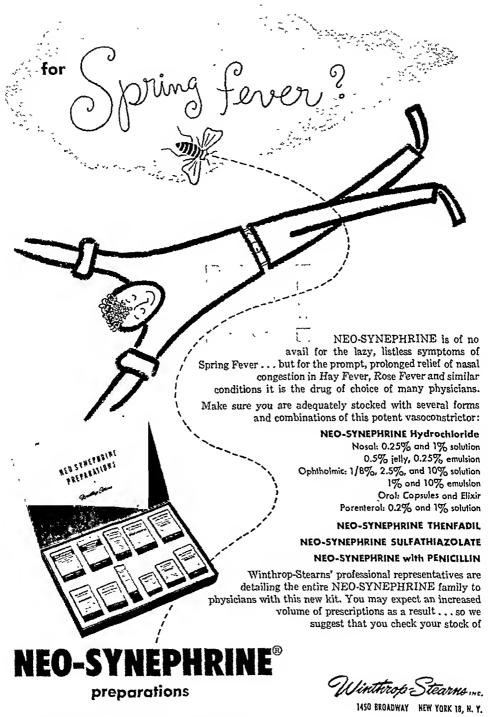
Final business of the school year was brought to a close for the George Washington University branch at the May 4 meeting. Mr. Harold C. Kinner, secretary of the D. C. board of pharmacy, spoke on "Reciprocity and Practical Experience." Social functions were climaxed with the third annual pharmacy school dance held at the Dupont Plaza Hotel.

#### LOCAL BRANCHES

Dr. Samuel W. Goldstein, acting director of the A. Ph. A. laboratory, was elected president of the Baltimore branch at the May 11 meeting. Other officers are: Dr. Otto W. Muchihause, vice-president, and Dr. Benjamin F. Allen, secretary-treasurer. Guest speaker at this meeting was Dr. Justin L. Powers, chairman of the Committee on National Formulary and editor of the Scientific Edition of the Journal of the American Pharmaceutical Association, who discussed the new and future editions of the National Formulary.

Speakers at the March meeting of the Baltimore branch were Dr. Paul Friedman, of the University

(Continued on Page 372)



NEO-SYNEPHRINE, trademark reg. U. S. & Canada, brand of Phenylephine Hydrochlorida

••••• • • • • • from page 370

of Maryland School of Medicine; and Dr. Joseph B. Sprowls, dean of Temple University School of Pharmaey. Dr. Friedman lectured on the use of medicinal preparations in ophthalmology and Dr. Sprowls discussed modern techniques for the preparation of medicinals for use in ophthalmology. The April meeting featured Mr. Morris L. Cooper, inventor of the Cooper mortar and pestle; and Mr. L. P. Brown, of E. R. Squibh & Sons.

Newly elected officers of the Chicago branch are: Dr. Frank Maher, president; T. G. Crawford, 1st vice-president; Paul MacDougal, 2nd vicepresident; and Louis Gdalman, secretary-treasurer.

Dr. George B. Koelle, professor of pharmacology at Columbia University, addressed a joint meeting of the Northern New Jersey Branch and the Essex County Pharmaceutical Association on April 18. In his speech, "Newer Autonomic Drugs," Dr. Koelle paid particular attention to drugs or agents euring nervous conditions leading to heart diseases, high and low blood pressure, and glaucoma.

Northwestern Ohio branch held its sixth annual A. PH. A. dinner on May 23, at Toledo's Maumee River Yacht Club. The year's business was closed and members will not meet agaiu officially until September.

The New York branch held a regular monthly meeting on May 14. Speakers and their subjects for the evening were: Dr. Hugo H. Schacfer, dean of the Brooklyn College of Pharmacy, "The Prescription Refill Problem"; and Nicholas S. Gesoaldc, secretary of the New York State Pharmaeeutical Association, "Regulations of the Office of Price Stabilization."

Dr. Alvah Hall, Dean of the University of Southern California College of Pharmacy, and Mr. Robert Graves, outgoing president of the Los Angeles Branch, were honored with the presentation of Apothecary jars by the members of the Los Angeles Branch at the March 15 meeting. Dean Hall was honored for his outstanding work with the University of Southern California Student Branch and Mr. Graves was honored for his leadership exemplified in re-activating the Los Angeles Branch.

Mr. George V. Christenson was elected president of the Cincinnati Branch at the March 7 meeting. Other officers are: Carl A. Swisher, vice-president: Elizabeth M. Lynch, secretary; and David R. Ulılfelder, treasurer.

Mr. William P. Murray of the Ohio State Board of Pharmaey discussed the history, present status, and future plans and prospects of pharmacy law and the pharmacy board in his speech, "Pharmacy in Ohio."

"International Night" was the thome of the March 27 meeting of the Michigan Branch, which was eo-sponsored by the Essex County Retail Druggists Association of Canada, and the Detroit Retail Druggists Association. Professor F. Norman Hughes, professor of Materia Medica at the University of Ontario College of Pharmacy and Mr. Joseph J. Shine, Editor of the Central Pharmaceutical Journal, presented talks of special interest to rctail pharmacists.

A general round-table discussion concerning the latest office of Price Stabilization Rulings was an important feature of the Western Nebraska Branch meeting held March 28, at Minatare. Present officers of the Branch were re-elected to serve in their same capacities for the next fiscal year.

#### American Association for Advancement of Science-Pharmacy Meeting

The next meeting of the American Association for the Advancement of Science will be held in Philadelphia on December 26-31, 1951. The program of the Pharmacy Subsection of the Medical Sciences is being made up. Six sessions of this Subsection will be held.

Arrangements will be made for advance registration. Advance registrants will be sent a copy of the Program before the meeting. See Science or Scientific Monthly in late August or September.

Authors who wish to present papers before the Subsection are requested to send in titles of papers as soon as possible. All titles for inclusion in the printed program must be in the hands of Glenn L. Jenkins, Chairman, Subsection Np. Purdue University, School of Pharmacy, Lafayette, Ind., by September 15.

#### THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF PHARMACY

Located in the heart of the Nation's Capital, a few blocks from the American Institute of Pharmacy, students have the advantages offered by the Government libraries, laboratories and museums.

A four-year course leading to the degree of Bachelor of Science in Pharmacy is offered.

The School is accredited by the American Council on Pharmaceutical Education and holds membership in The American Association of Colleges of Pharmacy.

For catalogues, write to the Director of Admissions The George Washington University, Washington 6, D. C.



Opticlear glass vials in 1, 3, 5, 7, 10 and 12-dram sizes.

Duraglas Emerald Green Vials in 2, 5, 7, 11 and 13-dram sizes.

# You're sure to please more than 8 out of 10 families with these & containers

Two recent nation-wide surveys showed that 85.7% prefer these glass vials to another type of commonly used container for Rx tablets, capsules and pills.

# Why your customers prefer these glass vials.



# Better Protection.

Their comments: "medicine doesn't dry out". . "remains clean and fresher". . . "keeps medicine longer because air tight" . . . "harder for small children to open."



# More Convenient for purse or pocket—

Comments: "less danger of spilling"...
"If in a hurry, easy, quick to open"...
"easy to see the medicine"..."easier to handle."



# More Professional in appearance—

Comments: "more in keeping with professions of medicine and pharmacy"... "exceptionally neat looking"... "very attractive"... "like shape."

One nation-wide group of consultants was sent an Emerold Green glass viol and another type of commonly used Rx container. Another similar group was sent an Opticleor glass viol and the other type container, Preferences for these glass viols were:	Emerald Green Vials Preferred by	Opticlear Vials Preferred by
Which type preferred for receiving Rx?	84.6%	86.9%
Which preferred for Purse or Pocket?	76.3%	77.3%
Which seems more in keeping with pro- fessions of medicine and pharmocy?	82.8%	89.3%

Build your Rx business the easy way—by pleasing the majority of your customers. Use the highly preferred Opticlear and Duraglas Emerald Green vials. Ask your wholesaler's salesmen for full information on these containers.



OWENS-ILLINOIS GLASS COMPANY · Toledo 1, Ohio · Branches in Principol Cities

# The Apprentice System

• • • • • • • • • • • • • from page 345

during the entire period of such experience." Regulation No. 7, among other things, states "that a pharmacy to be acceptable to the board of pharmacy, shall conform to the best traditions of pharmacy in the state—the pharmacist must have signified his willingness to train apprentices or to employ persons desiring to obtain practical experience—the pharmacy owner and the registered pharmacists supervising the practical experience of applicants for registration must agree to abide by the Code of Ethics of the A. Ph. A."

# SELECTING PRECEPTORS

It becomes apparent that we as practicing pharmacists must necessarily play a very important role in the proper training of our student pharmacists. The competence, conscience, and compliance of pharmacists serving out of professional pride as preceptors is the important factor. These are reasons why all boards of pharmacy must use great care in selecting those pharmacies to be designated as proper for student instruction.

It is encumbent upon all boards of pharmacy to establish a rigid set of standards for determining those stores that are qualified to receive interns. It is common knowledge that much of the experience which is being certified has no professional value, largely because the training is acquired in the wrong type of store. One is the store masquerading as a pharmacy but in reality is only a glorified variety, hardware, or food store. It is obvious that the student who gains his experience here, not only fails to learn anything to improve his professional skill, but forms habits and accumulates viewpoints that are detrimental to the future of pharmacy. Then, secondly, we have the unscrupulous operator who hires the embryo pharmacist merely because he sees an opportunity to hire someone at a reduced salary. This person probably further exploits his employee by requiring that he do janitor work, freight carrying, and other undesirable duties. In this instance, the apprentice gains an impression that pharmacy has been misrepresented to him with the result that he becomes discouraged and skeptical. Lastly, we have the indulgent relative who wants to see the young man or woman attain full registration without delay, so certifies to experience that is either questionable in its actuality or doubtful in its quality.

The report of the American Association of Colleges of Pharmacy on Curriculum has listed the following objectives which the student shall achieve as the result of preceptor training.

- 1. Gain ability to establish and maintain proper interprofessional relationships.
- Gain ability to establish and maintain proper intraprofessional relationships.
- Gain ability to establish and maintain proper customer-pharmacist relationships.
- 4. Gain confidence, efficiency and dispatch in prescription practice.
- Gain familiarity with trade names and package types of drugs, proprietaries and bacteriological specialties.
- 6. Gain familiarity with products classed as drug sundries, health and sick room supplies.
- Become acquainted with the mechanics of ordering and keeping inventories of narcotic drugs.
- Learn a method and the importance of establishing an efficient routine for handling the essential details of storekeeping.
- Gain information about seasonal recurrence of demands in medication and merchandise and the importance of anticipating such demands.
- 10. Learn the importance of buying merchandise in proportion to the sales volume of the store so that the inventory remains in balance.
- Gain in ability to make decisions regarding purchasing store equipment, arrangement and financing.

It is my opinion that those of us now in practice can do much to insure the future of pharmacy as a profession by raising the level of experience instruction. We should look upon our task of precepting as our contribution to our educational system and as our opportunity to give some young person the kind of inspiration and training that he should have and that perhaps we did not have. It is our contribution to the coming generation.



SCOTHING to itching, irritated skin, CALADRYL gives quick relief because of its antihistaminic-antipruritic combination-Benadryl with a specially prepared calamine-type lotion base.

SUMMER is the season when demand increases for relief from itching and irritation - sunburn, prickly heat, diaper rash, cosmetic rash, insect bites, hives, contact dermatitis, poison ivy and oak, and minor skin irritations.

ESALEST of CALADRYL are climbing steadily. Recognition of its value in common skin complaints and appreciation of its outstanding pharmaceutical elegance continue to build demand.

CALADRYLis a smooth, creamy lotion, pleasantly scented. It does not stain, does not rub off, and is easily removed by rinsing. It stays suspended for days and resuspends easily on slight shaking.

CALADRYLis supplied in 6-ounce bottles, wide-mouthed for easy application.

calamine-type antipruritic lotion with Benadryl®

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# U.S. FOOD AND DRUG ADMINISTRATION

# COURT JUDGMENTS-APRIL, 1951

### ADULTERATED AND MISBRANDED DRUGS AND DEVICES

Violation and Sentence

Locality	110ddot s	Violation and Schience
Pitman, N J	Racemic desoxy- ephedrinc hydrochloride	Substituted for amphetamine hydrochloride. Sentence: 1 defendant fined \$100 and placed on probation for 2 years.
и пин	1 1 11	मास्या ।। भाग्ना प्रशासकारमञ्जू
	OVER-THE-COU	NTER SALES—PRESCRIPTION DRUGS
Locality	Product	Violation and Sentence
St Louis, Ill.	Amphetamines; sulfonamides; diethylstilbestrol; thyroid	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$250
Akron, Ohio	Amphetamines	Sold without physicians' prescriptions. Sentence: 2 defendants fined \$100 each and court costs; \$100 fine against corporation suspended by reason of insolvency
Canton, Ohio	Amphetamines, methyltestoster- one	Sold without physicians' prescriptions. Sentence: firm fined \$200 and court costs, 1 defendant fined \$100, 1 defendant fined \$50
Columbus, Ohio	Amphetamines; sulfonamides; stilbestrol	Sold without physicians' prescriptions Sentence: 2 defendants fined \$150 each, firm fined \$200
Lima, Oluo	Sulfonamides	Sold without physicians' prescriptions. Scntcnce: 1 defendant fined \$100 and court costs
Spartanburg, S C.	Barbiturates, amphetamines	Sold without physicians' prescriptions Sentence: firm fined \$100, 3 defendants fined \$25 cach and placed on probation for 5 years
Spartanburg, S C	Barbiturates, amphetamines	Sold without physicians' prescriptions Sentence: firm fined \$100, 1 defendant fined \$25 and placed on probation for 5 years
Sioux Falls, S Dak.		Sold without physicians' prescriptions. Firm fined \$250
Sioux Talls, S. Dak Bristol, Va	Dexedrine sulfate Barbiturates	Sold without physicians' prescriptions 1 defendant fined \$250 Sold without physicians' prescriptions. Firm fined \$800

# TEACHERS SEMINAR ON PHARMACOLOGY

The American Association of Colleges of Pharmacy will hold a Teachers' Seminar on Pharmacology and Related Subjects, at Purdue University School of Pharmacy, Lafayette, Indiana, during the week July 9 to 14 There will be no fees or registration charge, and living expenses will be kept to a minimum

**Barbiturates** 

The course is open to teachers of pharmacology, graduate students who plan to enter teaching, pharmacologists in industrial, governmental, hospital or research laboratories, and administra-

tors of schools of pharmacy. Pharmacists, however, who are not engaged in any of these activities can attend the seminar if they so desire.

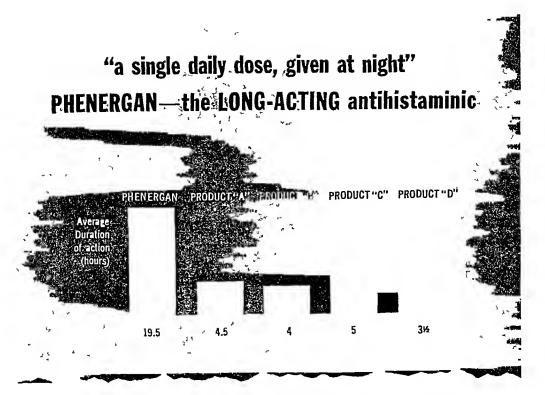
Sold without physicians' prescriptions. Firm fined \$800

The aim of the seminar is to improve the quality of instruction in our colleges, according to Dr Glenn L. Jenkins, dean of the Purdue School of Pharmacy and chairman of the seminar. The Teachers' Seminars are made possible by the support of the American Foundation for Pharmaceutical Education. Lecturers include more than 25 leaders in education and industry.

Bristol, Va.

Locality

Product -



PHENERGAN is Potent. A single bedtime dose of two 12.5 mg. tablets controls symptoms in most cases. PHENERGAN often gives relief when other antihistaminics fail.<sup>1</sup>

The only important side effect, drowsiness (1 out of 5 cases), is a distinct advantage in the bedtime dosage regimen. The antihistaminic action persists long after the soporific effect has worn off.

1. Shulman M R . Ann Allergy, 7 506, 1949

SUPPLIED: Scored tablets of 12.5 mg., bottles of 100.

# PHENERGAN®

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N-(2'-dimethylamino-2'-methyl) ethyl phenothiazine hydrochlorido

Wyeth Incorporated . Philadelphia 2, Pa.





# ASSOCIATIONS



The Southern California Pharmaceutical Association has moved to a new headquarters building. Located at 701 South St. Andrews Place, Los Angeles, the new headquarters building was

formerly a private home, now reconverted to accommodate offices.

Glenn Ricketts, Fayetteville, will serve as new president of the Arkansas Pharmaceutical Association. Mr. Ricketts was elected head of this group at the April 17 session of the annual convention.

The 26th annual convention of the Arizona Pharmaceutical Association was held May 6-9, in Phoenix, Arizona. Guest speakers were Dr. Robert P. Fischelis, secretary and general manager of the AMERICAN PHARMACEUTICAL ASSOCIATION; Bert R. Mull, of Eli Lilly & Co.; and John MacCartney, of Parke, Davis & Co. Dr. Fischelis spoke on "Pharmacy in the service of the Nation."

Dr. Fischelis also spoke before the Utah and Colorado pharmaceutical association conventions in mid-May. In June he addressed the So. Carolina and New York pharmaceutical association meetings. In all of these four states, his topic concerned matters of current interest to the profession, including the Durham-Humphrey Bill now before Congress and the Supreme Court's recent decision relative to Fair Trade.

# COLLEGES



The Oregon State Board of Higher Education recently set a five-year course of study, totaling not less than 240 quarter credits, as the minimum requirement for the baccalaureate degree with a

major in Pharmacy. The course approved consists of two years of study in the liberal arts and basic

sciences, followed by three years of professional study and training.

Enforcement of this new minimum requirement is to begin with the commencement of June, 1956. The course will then be mandatory on July 1, 1951, for all those entering upon the study of pharmacy at the Oregon State College after that date.

The University of Illinois has started construction on its new Drug and Horticultural Experiment Station, located near Lisle, Ill. An appropriation of \$65,000 has heen made available by the University of Illinois Board of Trustees for the erection of greenhouse and service units, to be used jointly by the Colleges of Pharmacy and Agriculture.

"The Pharmacy—Newer Aspects Part III" course is scheduled for July 30 to August 3, 1951, at the University of California College of Pharmacy, Medical Center in San Francisco. The course will deal with the latest modern developments.

More than 600 alumni of the Brooklyn College of Pharmacy and their friends attended the 60th anniversary commemoration of the founding of the College held at the Waldorf-Astoria, New York, April 29. The address of the evening was given by Tristram Walker Metcalfe, president of Long Island University.

Rho Chi, honorary pharmaceutical society, installed a chapter at the Philadelphia College of Pharmacy and Science at a special ceremony on May 10.

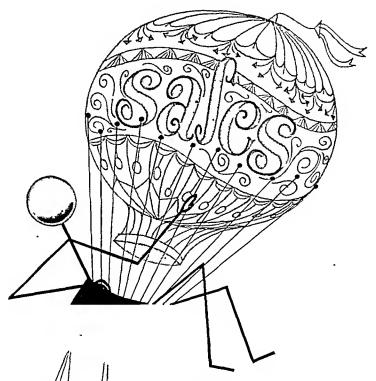
The first Civil Defense First Aid Station organized in the City of New York gave its first public demonstration of the treatment of injuries due to aerial bombardment at Fordham University, May 16. This unit, the first of 400 first aid units needed for the City of New York, was organized under the auspices of the Fordham College of Pharmacy and the College of Arts and Sciences. The demonstration was part of the program of the annual Reserve Officer Training Corps Demonstration Day.

The 69th annual reunion and banquet of the Alumni Association of the University of Illinois College of Pharmacy was held June 14.

Dean Howard C. Newton, of the Massachusetts College of Pharmacy, addressed the annual Pharmacy Day Convention of the School of Pharmacy, Creighton University, Omaha, Nebraska, on May 9. Dean Newton was formerly in charge of the Creighton University School of Pharmacy.

The University of Buffalo School of Pharmacy and its Alumni Association presented its Ninth Annual Spring Clinic and Alumni Day on April 26.

(Continued on Page 380)



climbing steadily....and still going up

Tablets MERCUHYDRIN with Ascorbic Acid have been outstandingly successful. Doctors give numerous reasons for liking them.

# doctors prescribe them

in many cases because they give greater diuresis with less mercury. Others because they're the only oral mercurial diuretic so well tolerated that they do not require enteric coating but can be safely administered with their simple sugar-coating.

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MP6

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# MANUFACTURERS



Formation of Moffet Laboratories, Inc., a new firm which will manufacture and market a line of pharmaceutical specialties, has been announced by John C. Moffet, president. Other officers of the

company are: Wallace W. Apgar, vice-president in charge of sales and advertising; M. A. Nunn, vice-president in charge of production and product development; and C. T. Williams, secretary-treasurer.

Col. Evan E. Kimble, pioneer glass manufacturer and founder of Kimble Glass, recently received the Award for Outstanding Service given by the Scientific Apparatus Makers Association. This is the third award given in the 33-year history of the Scientific Apparatus Makers Association.

Plans for the formation of a Canadian subsidiary and financial interest in a major new chemical plant at Cornwall, Ontario, were recently announced by Chas. Pfizer & Co., Inc. The firm will handle Canadian sales of terramycin, introduced by Pfizer in 1950, and other Pfizer-labeled articles.

E. Claiborne Robins, president of the A. H. Robins Co., Inc., Richmond, Va., was elected to the board of directors of the American Pharmaceutical Manufacturers Association during the recent meeting of the association at Boca Raton, Fla.

Heyden Chemical Corporation is constructing a new plant at its Fords, New Jersey Division for the purpose of bringing the production of parachloro-benzaldehyde from pilot plant to commercial scale. The new plant is part of a general expansion program scheduled by Heyden for 1951.

Harold A. Clymer, administrator of the research and development laboratories of Smith, Kline & French Laboratories, was recently elected president of the Philadelphia A. Ph. A. branch.

Let me make that first

R All profit...

I'll fill that first new major specialty script without touching your stack!
Write for full details on how the "Phil Furst" Automotic Distribution Plan brings you new major Merrell specialties in time to cotch the first prescriptions... gives you complete protection against "creeping inventory."

The Wm. S. Merrell Company Cincinnati 15, Ohio

New York • CINCINNATI • Toranto

Thirty-three employees who have been with Bristol-Myers Company for 25 years or more recently gathered for the Annual Dinner of the company's Quarter Century Club. Among those at the dinner were Henry P. Bristol, chairman of the board; Lee H. Bristol, president; and William M. Bristol, executive vice-president; all sons of the founder, the late W. M. Bristol.

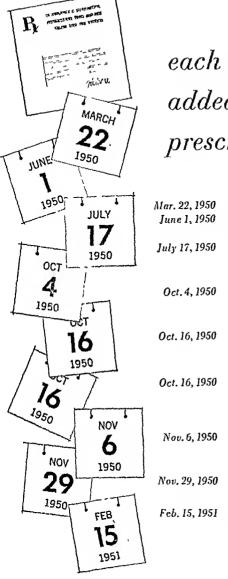
Armour and Company of Chicago will shortly open a new plant in Buenos Aires, Argentina, to tap new sources of raw material to relieve a potential shortage of insulin and increase supplies of ACTH and trypsin, it was recently announced. The Armour subsidiary responsible for the new plant will be known as Laboratorios Armour de Argentina, S. A., and will be headed by S. B. Bradshaw, president.

# Personnel Changes—

Organon, Inc.-Alan Kusik was recently appointed executive vice-president...W. B. Elterich will take over as sales manager. Commercial Solvents Corporation-Brownlee O. Currey has been elected to the board of directors...Dr. Harold J. Byrne has been appointed director of clinical research. Schenley Laboratories, Inc.-Arthur C. Emelin was recently elected president, succeeding the late Irving J. Seskis. Irwin, Neisler & Co.-Dr. Thomas B. O'Dell has been appointed senior pharmacologist on the company's laboratory Parke, Davis & Company-Graydon L. Walker has been named to direct the company's U. S. and Canadian sales. Wyeth, Inc.-Howard F. Christner has been appointed assistant secretary . . . Charles VerBerkmoes was named treasurer of the company. Sharp & Dohme, Inc.-E. J. Donahue has been named New York branch manager . . . George D. Grant has been transferred to Philadelphia as branch manager . . . William B. Rees, Jr., was appointed manager of the San Franeisco branch. Merek & Co., Inc.—Dr. Frank L. Cohen will serve as director of production and will be responsible for directing and integrating all manufacturing, packaging and shipping operations of various company plants.

Earthquake-stricken El Salvador recently received the gift of 5000 doses of the antibiotic drug, chloromycetin, contributed by Parke, Davis & Co. In addition, the pharmaceutical firm donated 100 doses of typhoid-para-typhoid vaccine to El Salvador, which recently suffered its worst earthquake disaster.

(Continued on Page 382)



# each date added to your prescription sales potential

Crystalline TERRAMY CIN Undrochtoride CAPSULES

Mar. 22, 1950 250 mg., bottles of 16 and 100; June 1, 1950 100 mg., bottles of 25 and 100;

50 mg., bottles of 25 and 100;

uly 17, 1950 Crystalline TERRAMYCIN Hydrochloride ELIXIR \*

1.5 Gm. with 1 fl. oz. of diluent.

Crystalline TERRAMYCIA Hydrochloride INTRAVENOUS

10 cc. vial, 250 mg.; 20 cc. vial, 500 mg.

Crystalline TERRAMYCIN III drochloride
OPHTHALMIC OINTMENT

I mg. per Gm. ointment; tubes of 1/3 oz.

Crystalline TERRAMICIN Hydrochloride OPHTHALMIC SOLUTION

5 cc. vials containing 25 mg.

for preparation of topical solutions.

Crystalline TERRAMYCIN Hydrochloride OINTMENT

30 mg. per Gm. ointment; tubes of 1 oz. and 1/2 oz.

Crystalline TERRAMYCIN TROCHES

15 mg. each troche; packages of 24.

Crystalline TERRAMYCIN Hydrochloride ORAL DROPS\*

2 Gm. with 10 cc. of diluent.

\*Terramycin is the only brood-spectrum antibiotic available as a palatable Elixir and as concentrated Oral Drops. The cooperation of pharmacists, who recognized in Terramycin a constantly renewed opportunity for increased prescription volume, helped make possible this rapid development of useful, sales-tested specialty forms. Pfizer research continues to make available to physicians antibiotics of therapcutic preference, while Pfizer promotion continues to accelerate their wide prescription and hospital use. Your wholesaler stocks all Terramycin specialty forms.

Antibiotic Division



CHAS. PFIZER & CO., INC., Brooklyn 6, N.Y.

BRIEFLY NOTED • • • • • from page 380

Eli Lilly and Company has recently announced plans to establish a unit for the processing of human blood plasma. The new unit will be set up and operated for the United States Government and will be completed late this year.

# AT RANDOM



The Pharmaccutical Directory, compiled for use by the AMERICAN PHARMACEUTICAL ASSOCIATION, will be revised shortly after the annual convention of the A. Ph. A., August 26-31. Please send to the

A. Ph. A. any correction you will want to appear in the 1951-52 Directory. The final date for accepting information will be December 1, 1951, for the next edition of the Directory.

The joint U. S. P.-N. F. Contact Committee Study Panel on Limitation of Contents of Multiple-Dose Containers recently concluded its study of the several problems assigned to it. The recommendations of the Study Panel to the revision committees of the U. S. P. and N. F. for adoption by supplement will be published in the Bulletin of the Committee on National Formulary.

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--- it is Better, Safer, Stronger, Better Service.

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The Industrial Research Institute, Inc., held its annual meeting May 14-16, in Washingtoa, D. C. Recipient of the Institute's annual Medal Award was Dr. Randolph T. Major, vice-president and scientific director of Merck & Co., Inc. With the presentation of the medal, Dr. Major was honored for his outstanding accomplishments in leadership and industrial research.

All physicians, pharmacists, their families and friends are invited to attend the annual convention of the General Practitioners Study Club International, September 1–25, in Rome, Italy. Lectures will be held en route at London and Paris. Write to Dr. John O'Connell, 10300 Lackland Road, St. Louis 14, Mo., for itinerary and reservations.

John W. McPherrin, editor of American Druggist for the past ten years, has been named Associate Publisher of Cosmopolitan Magazine, New York. He will take over bis new duties on September 15th.

Mr. Harrison S. Fraker has been elected president of the Topics Publishing Company, Inc., according to an announcement by the board of directors. Dr. Robert L. Swain, Mr. Dan Rennick and Mr. Harry K. Ambrose were named vice-presidents.

Mead's Handbook for Pharmacists, a loose-leaf notebook with ring binder containing up-to-theminute information on all Mead's nutritional products, bas recently been put out by Mead Johnson & Company, Evansville, Indiana.

# HOSPITAL PHARMACY

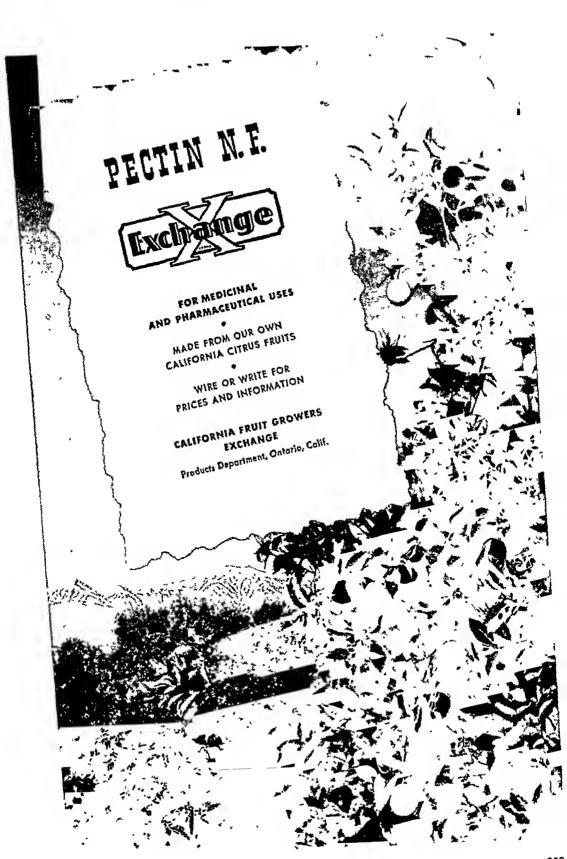


According to the American Medical Association's annual report on "Hospital Service in the United States," there is a total of 6430 registered hospitals in the U. S. with a bed capacity of 1,456,912.

Of this number, 4713 are general hospitals having a bed capacity of 587,917. The current report covering 1950 appears in the Journal of the American Medical Association, 146: 109 (May 12, 1951). Included is the list of hospitals registered by the A. M. A. along with other data secured annually through a survey to hospital administrators.

New officers of the Southeastern Society of Hospital Pharmacists installed at the recent meeting in St. Pctersburg, Fla., are: Lillian Price, Emory University Hospital, Atlanta, president; Ernest W. Rollins, Baptist Hospital, Winston-Salem, N. C., vice-president; and Miss Johnnie M. Crotwell, Tuscaloosa, Ala., secretary-treasurer.

(Continued on Page 384)



# BRIEFLY NOTED • • • • • from page 382

Sister Mary Junilla, chief pharmacist at Queen of Angels Hospital in Los Angeles, has recently been elected president of the Western Conference of the Catholic Hospital Association. Sister Junilla has been active in pharmaceutical and hospital organizations, both locally and nationally, for many years

Approximately 250 hospital pharmacists attended the Pharmacy Section of the Tri-State Hospital Assembly held in Chicago on April 30, May 1 and 2 Allen V R Beck, chief pharmacist at the Indiana University Medical Center in Indianapolis, was elected president of the Section and Miss Patricia Messner, Milwaukee County Hospital, Milwaukee, Wis, was elected secretary-treasurer.

"Suggested Equipment Lists for Hospital Pharmacies" prepared by the Division of Hospital Facilities of the Public Health Service and approved by the A. Ph A.'s Division of Hospital Pharmacy, are published in the March-April Issue of the Bull Am. Soc Hosp. Pharm Adapted to the "Suggested Plans for Hospital Pharmacies" published earlier, the equipment lists will serve as a guide to those concerned with establishing new pharmacy departments as well as remodeling existing facilities.

# GOVERNMENT



Successful results of a "trial run" to determine how quickly a vaccine might be produced in sufficient quantity to help prevent nationwide epidemics of especially virulent strains of influenza virus were re-

cently reported by Dr. W Palmer Dearing, Acting Surgeon General of the Public Health Service. Preliminary estimates indicate that a single laboratory could, with early isolation of a new strain, produce as many as one million doses of the vaccine within five weeks

The trial run in manufacturing the vaccine was initiated by the U. S. Influenza Study Program which was organized in cooperation with the World Health Organization by the Surgeons General of the Army, Navy, Air Force, and Public Health Service in 1948

The Food and Drug Administration recently appointed Wallace F. Janssen, former managing editor of F-D-C Reports, as Assistant to the Commissioner, to head the trade and public information activities.

Dr. K. S. Pitzer, Director of Research for the Atomic Energy Commission, resigned June 18, to become Dean of the College of Chemistry, University of California

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When the physician prescribes iron in the treatment of hypochromic anemias he specifies FERGON because this ferrous gluconate product is:

- An organic salt containing not less than 11.5 per cent iron, about 95 per cent of which is in the ferrous state.
- Only slightly ionized.
- Relatively nonirritating.
- Better tolerated.
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- More completely utilized.

For the treatment of iron deficiency anemias accompanied by a vitamin B deficiency, HEMO-GENIN offers the same ferrous gluconate available in FERGON with the addition of thiamine hydrochloride, riboflavin, nicotinamide, pyridoxine hydrochloride, calcium pantothenate and liver concentrate 1:20.

IRON in its finest form:

# **FERGON®**

Tablets of 2½ grains, bottles of 100; Tablets of 5 grains, bottles of 100, 500 and 1000; Elixir, bottles of 6 fl. oz., 16 fl. oz., and 1 gallon.

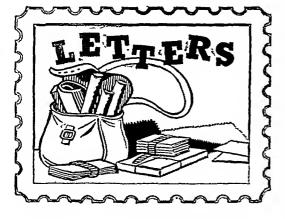
# **HEMO-GENIN®**

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Readers are urged to express their opinions on matters of importance to pharmacy, or on the contents of any issue of This Journal.

# Arthritis, ACTH Features

### Sirs:

This letter is to extend my appreciation of the articles on Arthritis in the April issue, and ACTH in the May issue, of the *Practical Pharmacy Edition*. These articles should help us immeasurably in the future as reference material. They should also give us the feeling that we now know at least as much as most physicians, and more than many. This is what I feel we should know if we are to handle the drugs used specifically for diseases that are quite common.

Auburn, Wash.

MAURICE HYATT

# Membership Vital

# Sirs:

Enclosed is a check for my dues which entitles me to active membership in the AMERICAN PHARMACEUTICAL ASSOCIATION, an organization of which I am very proud. Too many individuals sit back and complain, but take no action. The only way we can aid the profession of pharmacy is by association—and as nearly complete organization as is possible.

I am in hopes that everyone will raise his ideals to a level which will bring more respect to the certificate for which I worked long and diligently to obtain. After all, a profession is made so by the ideals in the minds of the individual members.

If we insiders fail to regard it as such, how can we expect the outsiders to respect us as we would like?

Des Moines, Iowa

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Buffalo, N. Y.

SYLVIA TORRE

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I would like to congratulate you on the last few editions of the Practical Pharmacy Edition of THE JOURNAL.

Never before have I found the articles to be so interesting and so informative. Your very recent New Prescription Products department is a wonderful idea—really makes it easy to keep a file of all new products, especially with an index. Coagratulations again.

New York, N. Y.

SAUL L. ROSENBLUTH

### Sirs:

I wish to commend you on the Practical Pharmacy Edition of The Journal, which has become a live-wire indispensable publication. I like especially the New Prescription Products and the Recent Progress in Medicine sections. Both of these make The Journal essential to all pharmacists who wish to keep up with current trends.

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PUBLISHED by the American Pharmaceutical Association Publication Office: 20th and Northampton Streets, Easton, Pa. Editorial office (and address for all correspondence): 2215 Constitution Ave., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journal of the American Pharmaceutical Association, complete (both editions): United States and Pan America \$7; Canada \$7.70; other foreign \$8; members of the American Pharmaceutical Association with dues, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition: United States and Pan America \$4. Canada \$4.35; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Canada \$0.40; other foreign \$4.50. foreign \$0.50.

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ENTERED as second-class matter January 23, 1917, at the Post Office at Easton, Pennsylvania, undor the act of March 3, 1879, as 24 times a year; Scientific Edition monthly on the 5th; Practical Pharmacy Edition monthly on the 20th. Acceptance for mailing at a special rate of postage provided for in Section 1103. Act of October 3, 1917, authorized July 10, 1918.

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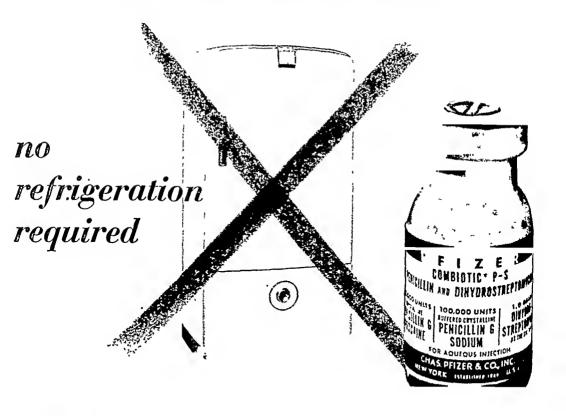
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# PROGRESS IN MEDICINE REPORTING THE A.M. A. CONVENTION

On the following pages, we deviate from the usual policy of digesting current medical literature, and present brief reports on the papers most important to pharmacy which were read at the one hundredth annual session of the American Medical Association, Atlantic City, N. J., June 11 to 15, 1951.

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# PROGRESS IN MEDICINE



# HYPERTENSION: CURRENT TREATMENT

Hypertension is of multiple etiology, and as a result, the first step in treatment is proper diagnosis, according to Dr. I. H. Page of Cleveland. Some of the ascertainable causes, such as tumor of the sympathetic nervous system, renal infection, and stricture, are curable. Essential hypertension is currently treated by (1) establishment of a firm patient-physician relationship, (2) general hygienic measures, mental and physical, (3) sedation, (4) hypotensive drugs (thiocyanate, veratrum alkaloids, nitroprusside), (5) low sodium diets including rice diets, (6) sympathectomy. (7) as a measure of last resort, adrenalectomy, and (8) in malignant hypertension, besides a few of these measures, pyrogens if renal failure is not severe

(Page, Irvine H., Current Treatment of Hypertension, Section on Experimental Medicine, Friday, June 15.)

# HOUSEHOLD POISONING IN CHILDREN

Dr. Jay M. Arena of Durham, N. C., outlined the principles which should be kept in mind when household poisoning in children, a common event, occurs. His steps include prompt identification of the poison, removal of the bulk of the poison from the stomach by gastric lavage or an emetic, administration of an antidote for the residual poison not removed by lavage, administration of an antagonist when available, and finally, symptomatic treatment as indicated. Dr. Arena points out, however, that emetics should never be used in cases of kerosene or caustic alkali poisoning or when the patient is semicomatose. When a stomach tube is used, the antidote and other remedies should be left in the stomach before removal of the tube. If

the poison is unknown, Dr. Arena suggests the following universal antidote: pulverized charcoal (burned toast), 2 parts; tannic acid (strong tea), 1 part; magnesium oxide (milk of magnesia), 1 part.

(Arena, Dr. Jay M., Household Poisoning in Children, Section on Pediatrics, Friday, June 15.)

# MYASTHENIA GRAVIS, PRESENT STATUS OF THERAPY

Dr. Nathan S. Schlezinger of Philadelphia, contending that the only real progress in the treatment of myasthenia gravis has occurred within the past 20 years, reviewed the literature, as well as case histories, to prove his views. Ephedrine, neostimine, potassium, guanidine and tetraethylpyrophosphate have all been used in the treatment of this important neuromuscular disorder. Dr. Schlezinger concluded that in most cases prostigmine and ephedrine medication is still the most reliable and effective treatment.

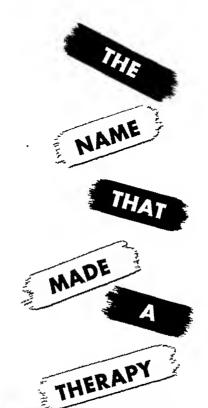
(Schlezinger, Nathan S., The Present Status of Therapy in Myasthenia Gravis, Section on Nervous and Mental Diseases, Thursday, June 14.)

# RESIDUAL DEFECTS FOLLOWING MENINGOCOCCIC MENINGITIS

The incidence of complications and the number and percentage of residual defects following recovering of 51 patients with meningococcic meningitis showed little relationship to the type of therapy used, according to Dr. A. T. Ross of Indianapolis. Following recovery, these patients

(Continued on Page 394)

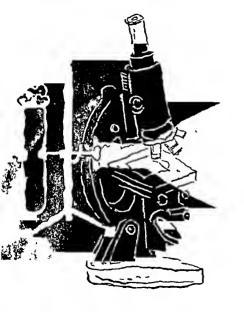
# IN HAY FEVER AND OTHER ALLERGIES



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were given physical as well as neurologic examinations. Dr. Ross found that although sulfonamide and combined sulfonamide-penicillin therapy have greatly reduced the mortality rate as compared with serum therapy, there were no statistically significant differences among the three methods with respect to complications or residual defects. The addition of penicillin, however, seemed to reduce the likelihood of damaging complications.

(Ross, Alexander T., Comparative Incidence of Residual Defects following serum, sulfonamide and sulfapenicillin therapy for meningococcic meningitis, Section on Nervous and Mental Diseases, Thursday, June 14.)

# ANTIHISTAMINES IN ALLERGIC DISORDER

The usefulness of antihistamines can now be evaluated, believes Dr. John H. Mitchell of Columbus. Temporary relief, he concludes, can be expected in the milder symptoms in some cases of seasonal hay fever, perennial vasomotor rhinitis and chronic urticaria, but they appear to be inadequate in the severer manifestations of these diseases. Poor response has been noted in asthma, contact dermatitis and atopic dermatitis. Recent investigations have also shown, according to Dr. Mitchell, that these drugs have no beneficial effect either on the prevention or treatment of colds. Sedative effect of the drugs is also a factor in their use. Summing up his findings, he

states: "The ideal drug for the symptomatic relief of allergic syndromes has not yet been developed."

(Mitchell, John H., Antihistaminics in Allergic Disorders, Section on Miscellaneous Topics, Session on Allergy, Wednesday, June 13.)

# STREPTOKINASE AND STREPTODORNASE IN INFECTED WOUNDS

Drs. Joseph M. Miller, Perrin H. Long, and Edward S. Stafford of Johns Hopkins, Baltimore. reported that streptokinase and streptodornase offer the surgeon a new approach to the therapy of infected wounds. Through their catalytic and enzymatic properties, it is now possible to bring about liquefaction of fibrin and of desoxyribose nucleoprotein in those situations in which it is possible to bring these compounds in direct contact with fibrin or pus for a period of time As they have no effect on living tissue, the liquefaction of fibrin and pus not only eliminates the medium in which infection luxuriates but also facilitates the formation of healthy granulation tissue. Thus, the secondary closure of infected wounds and of cold abscesses can be done earlier. infected denuded areas can be cleaned up preparatory to skin grafting, and accessible clots and fibrin coats may be liquefied promptly.

(Miller, Joseph M.; Long, Perrin H., and Stafford, Edward S., Streptokinase and Streptodornase in the Treatment of Infected Wounds, Section on Surgery, General and Abdominal, Wednesday, June 13.)

# ATOPIC DERMATITIS AND CORTISONE

In a series of patients with atopic dermatitis, Drs. T. H. Sternberg and Victor D. Newcomer of Los Angeles achieved dramatic results with cortisone. However, in most instances, these dramatic effects were only maintained while the patients were receiving the medication. They concluded that prolonged maintenance therapy presents numerous unsolved problems demanding further investigation.

(Sternberg, Thomas H., and Newcomer, Victor D., The Treatment of Atopic Dermatitis with Cortisone, Section on Dermatology and Syphilology, Wednesday, June 13.)

# ACTH AND CORTISONE IN ALLERGIC DISEASES

In a round table discussion on ACTH and Cortisone in the treatment of allergic diseases, Drs. Robert A. Cooke and Marion B. Sulzberger,

of New York, and Bram Rose of Montreal, Canada, observed that these two drugs have proved to have great therapeutic effect in the temporary suppression of symptoms of many, including bronchial asthma, allergic dermatitis, urticaria, and drug allergies. However, their effect is only temporary, and not curative, so that their use does not replace the need for rational allergic management.

(ACTH and Cortisone in Allergic Diseases, Round Table discussion, Section on Miscellaneous Topics, Session on Allergy, Wednesday, June 13.)

# TRACHOMA: SULFONAMIDE AND ANTIBIOTIC THERAPY

Dr. A. A. Siniscal, of the Missouri Trachoma Hospital, Rolla, Mo., presented an analysis of the comparative results obtained from sulfonamide and antibiotic therapy at the hospital during the past decade. All the antibiotics were used experimentally with the same generalnegative-result. Although they have no specific effect on trachoma, per se, antibiotics are, however, of value in clearing the secondary infections associated with the disease. It is because of this fact that Dr. Siniscal reported that other observers believe antibiotics such as aureomycin to be efficacious. He concluded "the sulfonamides remain as first choice at the present time. and the newer, highly soluble nontoxic salts are especially effective."

(Siniscal, Arthur A., Sulfonamides and Antibiotics in Trachoma, Section on Ophthalmology, Thursday, June 14.)

# ACIDITY AND ULCER SYNDROME

The relationship between gastric acidity and ulcer syndrome has long been the subject of numerous studies. From his observations, Dr. Benjamin M. Bernstein concluded that too much attention has been given to attacking acidity, since his studies have shown that various techniques have relieved the ulcer symptoms without affecting acidity at all. "Ulcer niches," he states, "especially in the stomach, have disappeared spontaneously or under a variety of therapeutic procedures, and even despite medically stimulated increased acidity." Anti-spasmodics also relieve the symptoms without any appreciable effect on the acidity.

(Bernstein, Benjamin M., Acidity: Is It Related to Ulcer Syndrome? Section on Gastro-Enterology and Proctology, Wednesday, June 13.)

# **OBESITY**

Dr. Clifford J. Barborka of Chicago, recognizing the adverse influence obesity has on various diseases, as well as the serious psychological problems stemming from it, believes that the primary aim of the physician is to teach the patient the true facts about the condition. Unfortunately, most obese patients seek some other reason than overeating as the cause of their condition, which presents a considerable barrier to effective treatment.

(Barborka, Clifford J., Present Status of the Obesity Problem, paper before the Section of Gastro-Enterology and Proctology, Wednesday, June 13.)

# DERMATOMYCOSIS, EXPERIMENTAL TREATMENT

Three forms of asterol dihydrochloride were used in the treatment of 100 patients suffering from different types of superficial fungus infections of the skin. In reporting his findings, Dr. H. G. Ravitz of St. Paul stated that the new drug effected a complete clearing of the infection in 50 per cent of the patients. Marked improvement was shown in 39 per cent, and 11 per cent showed no improvement. No bad reactions to the medication, either systemically or locally, were observed.

(Ravitz, Harold G., Treatment of Dermatomycoses with Asterol Dihydrochloride, Section on Dermatology and Syphilology, Friday, June 15.)

# BANTHINE: A CLINICAL EVALUATION

Provided its limitations and side effects are well appreciated, Dr. Gordon McHardy of New Orleans believes that Banthine is a therapeutic adjunct in gastro-enterology. However, it has not lived up to the enthusiasms obvious in the early contributions in the literature. It has particularly been disappointing in the treatment of ulcerative colitis. Dr. McHardy recognizes it, however, as "an extremely useful adjunct in the management of uncomplicated duodenal ulcer patients, of presumed efficiency in acute pancreatitis, and in instances of chronic recurring pancreatitis."

(McHardy, Cordon, Banthine: Clinical Evaluation in Gastro-Enterology, Section on Gastro-Enterology and Proctology, Wednesday, June 13.)

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# CHRONIC ULCERATIVE COLITIS

The effects of ACTH on chronic ulcerative colitis in 40 patients were studied under carefully controlled conditions by Dr. Joseph B. Kirsner and Walter P. Palmer, professor of medicine, University of Chicago. The present evidence indicates that ACTH does not "cure" the condition, nor does it alter the basic personality structure of the patient, nor apparently eliminate the factors promoting recurrence. Nevertheless. the administration of adequate amounts of potent ACTH preparations seems usually to be followed by pronounced and, occasionally, dramatic clinical improvement. Fifteen patients treated have not had a recurrence, and twenty have had mild relapses. Final evaluation will require prolonged study of a larger series of patients.

(Kirsner, Joseph P., ACTH in Chronic Ulcerative Colitis: Clinical Observations, paper before the Section of Gastro-Enterology and Proctology, Friday, June 15.)

# RHEUMATIC FEVER AND THE GENERAL PRACTITIONER

According to Dr. Arild E. Hansen of Galveston, Texas, the spectacular regression in cases of acute rheumatic fever following administration of pituitary adrenocorticotropic hormone completely changes the attitude toward the necessity of early diagnosis in this disease. Since the early phase of the disease responds to hormonal therapy, proper and accurate diagnosis is exceedingly important. In the past, management of the disease in the early phase was the same as in later stages. Since most children are first seen by the general practitioner, Dr. Hansen maintains that it is vital that the GP become more familiar with the multiform manifestations of the disease. While there are, at present, no laboratory tests or ancillary clinical procedures to facilitate proper diagnosis of the early stage of the disease, there is evidence to indicate that a new therapeutic test may prove invaluable.

(Hansen, Arild E., The New Challenge for Early Diagnosis in Acute Rheumatic Fever, Section on Pediatrics, Friday, June 15.)

# DRUG THERAPY IN DISEASES OF THE CHEST

There are many effective drugs available for the treatment of the common, acute pulmonary infections, and most of the rarer bacterial infections and many due to viruses are amenable to drug therapy, according to Dr. W. M. Schwartz of Oteen, N. C. In tuberculosis, streptomycin or dihydrostreptomycin, combined with paraminosalicylic acid is preferable. The latter is added principally for its effectiveness in delaying the emergence of streptomycin-resistant organisms. Also, diminished toxicity accompanies reduced streptomycin dosage, and therapeutic efficiency is maintained when it is combined with the paraminosalicylic acid. This permits longer continuation of treatment with apparently improved results. Usually streptomycin should be used only in patients not expected to do well with ordinary treatment and should not be considered to make the coincident treatment with bed rest unnecessary, concludes Dr. Schwartz.

(Schwartz, William S., Recent Drug Therapy in Discases of the Chest, Section on Diseases of the Chest, Friday, June 15.)

# NEOMYCIN IN DERMATOLOGY

Drs. Roy L. Kile, Evelyn Rockwell, and Jan Schwarz of Cincinnati observed the results of topical applications of Neomycin on 700 patients and found it effective in most cases of skin infection. A greasy type ointment was found most effective and gave the fewest reactions. The physicians attributed this reduction in side reactions to the base itself. A very low incidence, only three cases, of hypersensitivity to Neomycin was detected. In commenting on the bases used, Dr. Kile said that the very simple and common preparation of lanolin 10 per cent, and mineral oil 5 per cent, in vas alba, q.s., was far more satisfactory than a water-miscible base as a vehicle. Neomyein as a wet dressing, diluting the crystals of the preparation in water or saline, was also used, but not as effectively as the ointments. In 23 cases, Neomyein by injection was used, with some effect, but due to the reported toxic reactions some patients have had as a result of Neomycin injections, this form of treatment was continued for only a limited time, five to seven days.

(Kile, Roy L.; Rockwell, Evelyn; Schwarz, Jan; The Use of Neomycin in Dermatology, Section of Dermatology and Syphilology, Thursday, June 14.)

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# AMERICAN PHARMACEUTICAL ASSOCIATION



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# JULY, 1951

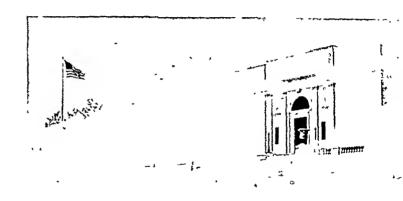
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# STRAIGHT FROM HEADQUARTERS



by Robert P. Fischelis, Secretary

AMERICAN PHARMACEUTICAL ASSOCIATION

# Remember the Declaration of Independence

THERE is no phase of regulation of the Federal Food, Drug and Cosmetic Act which does not to some extent affect every branch of the profession of pharmacy and the drug industry. Hence interpretation or amendment of this Act should be viewed, by all who are affected, in a cooperative way. No branch of pharmacy should be favored at the expense of any other and the principal criterion of adequacy of the law should be the public health and welfare.

Failure to deal wisely, honestly, and equitably with lawmakers and colleagues in the same and related professions or industries on legislation of common interest will result in no permanent gain for anyone. The recent Supreme Court decision in the Fair Trade case bears this out very pointedly. Legislation to stand the highest legal tests must be well considered. It must not be trickily or carelessly drawn. It must not be trickily or unfairly enacted.

The Congress refers legislative proposals to committees for hearings and study. These committees can sometimes be browbeaten and they can be unduly influenced by Administrative agencies. Members of Congress freely admit they are not experts on technical matters. They have confidence in most administrative agencies and they are influenced to some extent by pressure from constituents. But when they find that an administrative agency is taking unfair

advantage of a situation to arrogate unnecessary powers unto itself and that the pressure to which they are subjected is created artificially for no sound public purpose, they are inclined to turn upon their tormentors and act with surprising independence.

It is quite possible that this may happen in the case of the Durham-Humphrey bill when the House of Representatives and the Senate find out what has been going on in the line-up of the Food and Drug Administration with one organization in the drug industry against the entire remainder of the profession and industry.

The American Pharmaceutical Association has stood by the principle that regulation of the professions is a state and not a federal function; that the Congress does not intend to regulate prescription practice at the federal level; and that the American way to determine what a law means is to have the Administrative Agency designated to enforce the law, state officially what it means. The meaning should be made clear by regulations published and circulated according to accepted procedure so that they can be officially contested in the courts if they seem unsatisfactory.

The Food and Drug Administration and the N. A. R. D. together forcefully opposed this American procedure. They recognized the inadequacy of the FDA interpretation of the law with respect to prescription filling and refilling but insist that amendment of the law is the only remedy.

Had they confined their proposed amendments to the point at issue, one might have gone along with the proposed procedure if modified to omit regimentation of the profes-But they insisted on adding new powers for the FDA which the N. A. R. D. swallowed hook, line, and sinker and now it is up to the rest of the industry and profession and to the profession of medicine to correct a proposal which regiments the professions of medicine and pharmacy, opens the sale of more proprietary prescription products to anyone, and robs pharmacy of the exercise of its professional functions to so large a degree that a serious protest against the enactment of the Durham-Humphrey bill in its various revisions becomes necessary.

Dogged determination to see something through is a good trait if applied to a just cause but it takes more than the judgment of one individual to determine what is a just cause for the entire profession of pharmacy and the drug industry.

July is the month in which America celebrates the signing of its Declaration of Independence. Let not the 175th anniversary of this Declaration, in 1951, mark the beginning of the end of the free exercise of professional prerogatives granted by the states to its physicians and pharmacists.

# Professionalism Remains the Backbone of Pharmacy

PHARMACISTS are considered members of the health team because they practice pharmacy. Regardless of the identification of many practicing pharmacists in the retail field with business unrelated to the practice of pharmacy or the public health, they are considered members of the health team when they function in their specialized professional capacity as registered pharmacists under state laws.

It is very important to keep this fact constantly in mind and the American Pharmaceutical Association continuously bends its energies toward keeping the professional function of pharmacists before related professions and the government.

Recognition of pharmacy and pharmaceutical service as professional functions in the health field is exemplified in two recent developments which point to the great impor-

tance of emphasizing the pharmacists' professional activities continuously.

General Overriding Regulation 14 of the Office of Price Stabilization exempts certain services from price control. Section 3 of the Regulation provides that no ceiling price regulations now or hereafter issued by OPS shall apply to the rates, fees and charges for the supply of the services listed and those which fall within the scope of the occupations listed. The list includes "(47) pharmacists registered, for filling prescriptions which require the services of a registered pharmacist, and which contain a physician's, dentist's, veterinarian's, or any other licensed practitioner's written directions as to use, and is signed by him; provided, however, that where a registered pharmacist sells a prodwithout transposing the directions from the prescription to the label, that is the sale of a commodity and is not exempt under this regulation.'

Pharmacists should note this provision well. It does not except from the price regulation the general merchandise of the drugstore or any service other than the prescription service. It distinguishes between prescription products supplied on the prescription of a physician, dentist, veterinarian, or any other licensed practitioner and carrying the practitioner's directions and the same products supplied without a prescription. The sale of the latter is not exempt from ceiling price regulation. Thus the administrator has recognized the professional function of the pharmacist but he limits this function to prescription practice exclusively.

When the new selective service law was passed the House and Senate conferees finally agreed to mention pharmacy among the health professions. This was due principally to the fact that Congressman Durham, who was able to speak for the House conferees as a pharmacist in the deliberations, had back of him the pharmacy manpower recommendations of the Rusk Committee, which in turn had been furnished with the facts about pharmacy's professional activities by the A. Ph. A.

As a non-profit educational, scientific, and research organization, the A. Ph. A. constantly makes its contributions of fact and information to the Congress and to administrative agencies on request. Its form of organization and status do not permit it to indulge in pressure lobbying.

1



A special trip to famed Niagara Falls will be a mid-week convention feature

# PRELIMINARY PROGRAM

1951

A. PH. A.

CONVENTION

BUFFALO, NEW YORK AUGUST 26-31 Practicing pharmacists, educators, and research workers slated to present more than 250 papers at Sectional and General Sessions.

The Buffalo convention will draw largely upon membership talent for the highlights of the various Section programs. Leading the procession of contributions to the science and art of pharmacy is the Scientific Section with a schedule of 120 papers. The lists of papers for the five sections given on succeeding pages indicate the diversity of interests of American pharmacists and point to the far-reaching influence of the A. Ph. A. in every field of pharmaceutical practice.

The annual address of the President, Henry H. Gregg, will feature the first general session to be held Tuesday evening, August 28.

# Surgeons General to Speak

At the second general session, Thursday morning, August 30, the convention will hear addresses dealing with the current emergency and with world health affairs. Surgeon General George E. Armstrong, of the United States Army, will address the convention on problems of military medicine, with special reference to their pharmaceutical implication. Dr. Leonard A. Scheelc, Surgeon General of the U. S. Public Health Service and president of the World Health Organization will speak on civilian health problems as viewed from a world-wide aspect with special reference to the part pharmacists can play in broadly conceived programs for the advancement of public health.

Surgeon General Harry G. Armstrong, of the United States Air Force, will address the convention on the medical activities of this newest branch of the military service and emphasize the reliance of the service on pharmacists for their specialized function.

Admiral C. J. Brown, the Deputy Surgeon General of the United States Navy will speak for the Navy at this convention. Colonel William L. Wilson, head of the Health and Welfare Office, Federal Civil Defense Administration, will discuss the pharmacist's role in civil defense.

Recognizing the great interest of practicing pharmacists and other members of the Association in the problem of fair trade, the Association has been fortunate in securing Mr. Kenneth Perry, Esq., Vice-President and General Counsel

of Johnson and Johnson to discuss "The Fair Trade Situation Today."

The address of President-Elect Don E. Francke will conclude the program of the second general session.

The third general session to be held Friday evening, August 31, will conclude the convention and will be devoted to general business and installation of officers.

Aspecial general session will be held on Wednesday evening, August 29, for the purpose of passing on the By-laws of the Association, copies of which will be mailed to the members in advance of the meeting.

# Special Convention Events

The Plant Science Seminar has arranged an interesting program for the week preceding the annual convention beginning Wednesday, August 22. Principal sessions of the seminar will be held at Niagara Falls. As this is written, it is not certain whether the headquarters for the seminar will be at Niagara Hotel or at the Temperance Hotel. Final announcements and a program of the seminar can be obtained from Dr. Edward P. Claus, Secretary, University of Pittsburgh School of Pharmacy, Pittsburgh 19, Pa.

Meetings of the women's auxiliary are scheduled for Wednesday, August 29, beginning with the annual brunch at 10:00 a.m., followed by a business session. A second business session will be held Friday, August 31, at 10:00 a.m.

Fraternity and other special breakfasts, luncheons, and dinners are being arranged with the Kappa Psi breakfast being scheduled for Wednesday morning, August 29, the Phi Delta Chi breakfast on the same morning, and the Rho Chi dinner and annual meeting on Wednesday evening, August 29.

The Lambda Kappa Sigma luncheon has been tentatively set for Wednesday, August 29.

Entertainment, in addition to that already referred to, will include a concert by the Angelus Choir at 8:00 p. m., Sunday, August 26, at the Hotel Statler; a city tour for the ladies, including stopovers at places of interest, beginning at 1:30 p. m., Monday, August 27; a card party for the ladies on Tucsday afternoon, August 28: the President's Reception and Dance on Wednesday evening, August 29, following the special general session; and a trip to Niagara Falls and Fort Niagara for the ladies on Thursday, August 30, with the male members of the convention joining the trip at 4:00 p.m. This trip will include a buffet supper at Queenston and an opportunity to view the falls as illuminated during the evening.

# SCIENCIE SECTION

A record is being set by the Scientific Section by the number of papers which have been submitted for the Buffalo meeting. The 120 papers submitted will be presented at the four sessions of the Section, scheduled for Wednesday morning and afternoon, August 29; Thursday afternoon, August 30; and Friday morning, August 31.

After transaction of the customary business of the opening session which includes the Chairman's address by E. P. Guth, and the Secretary's address, by R. S. Kelley, the Section will divide itself into two groups for the reading and discussion of papers. These groups will meet simultaneously.

At the Wednesday afternoon session, the first part of the program will be the Chilean Iodine Educational Bureau, Inc., Award Lecture to be given by Dr. C. P. Leblond, of McGill University, Montreal, who is the recipient of the 1950 award. Following this lecture, the Section will divide into two groups for reading and discussion of the papers programmed.

At the final business session of the Section, on Friday morning, August 31, the groups will unite for the consideration of resolutions, nominations, election, and installation of officers.

The official convention program to be distributed at the meeting will list the papers according to the schedule worked out for each of the group meetings. The following list of titles and authors is not arranged in the order in which the papers will be presented.

- "Antispasmodics. I. Phenyl Esters of β-Dialkylamino Propionic Acids"—Taito O. Soine and Frank E. DiGangi.
- 2. "A Further Comparative Study of the Buffering Capacity of Various Commercially Available Gastric Antacids"—E. Roy Hammarlund and L. Wait Rising.
- 3. "A Preliminary Phytochemical Study of Lithospermum Ruderale, Douglas"—Ole Gisvold and John W. Kleher.
- 4. "Experiments with Khellin. I. The Preparation of Desmethyl-khellin and Some of Its Derivatives"—Hamed Abu Shady and Taito O. Soine.
- 5. "Strip Film Package Evaluation"-G. L. Christenson.
- "Water-in-Oil Emulsifying Agents. VI.
   3-Carboxy-Δ<sup>6</sup>-cholestene and Some of Its Derivatives"—E. L. Cataline and Joseph E. Sinsheimer.
- 7. "Water-in-Oil Emulsifying Agents. VII. Substituted Phenyl-stearates"—E. L. Cataline and Floyd A. Grolle.
- 8. "Water-in-Oil Emulsifying Agents. VIII. n.Alkylstearates"—E. L. Cataline, Harold W. Ross-

- moore, M. B. Cook, Hwei-chun Hsu, and Edward I. Hand.
- 9. "Extraction of Belladonna Root by Various Furans"—L. G. Gramling and Ed. D. Carkhuff.
- 10. "Filter Technique as a Factor in the Stability of Thiamine Hydrochloride Injections"— Abraham Taub and Sidney Paikoff.
- 11. "The Determination of Water in Some Official Substances by the Karl Fischer Method"—Arthur J. McBay.
- 12. "Determination of Heavy Metals in Pharmaceuticals"—F. N. Steward and C. W. Strode.
- 13. "Hydrolytic Stability of Saccharin"—Oliver DeGarmo, George W. Ashworth, Charles M. Eaker, and Ralph H. Munch.
- 14. "The Preliminary Oxidation of Sorbose"—Olav Braenden and Ole Gisvold.
- 15. "The Synthesis of Some New Esters of p-Carboxybenzamidine"—Alfred W. Chow and Ole Gisvold.
- 16. "Digitalis Extraction Studies, III"—Raymond E. Hopponen and Ole Gisvold.
- 17. "Digitalis Extraction Studies, IV"—G. G. Krishnamurty and Ole Gisvold.
- 18. "The Synthesis of Some Effective Antioxidants"—Li-Chin Chiang and Ole Gisvold.
- 19. "Some Derivatives of o-Thymotinic Acid"
  —Shao-chia Chou, Paul J. Jannke, Joseph B. Burt, and LaVerne D. Small.
- 20. "The Determination of Carvone in Oil of Spearmint"—LaVerne D. Small, James E. Dusenberry, and Walter T. Gloor, Jr.
- "The Preparation of Some Dialkylmalonitriles"—Robert F. Doerge and Charles O. Wilson.
- 22. "The Preparation of Some 4,6-Dithiobarbituric Acids"—Robert F. Doerge and Charles O. Wilson.
- 23. "Procaine in the Treatment of Carbon Monoxide Coma"—P. Earl Palmer, William M. Bethmann, and Wm. Kirby West.
- 24. "A Spectrophotometric Assay for Diethylstilbestrol and Related Estrogens"—Clark A. Kelly and Arthur E. James.
- 25. "A Chromatographic-Spectrophotometric Method for the Assay of Rutin in Fagopyrum Species"—Glenn J. Elliott and Ralph F. Voigt.
- 26. "Induced Variations in the Growth and Rutin Content of Fagopyrum tataricum Gaertn."—Glenn J. Elliott and Ralph F. Voigt.
- 27. "Modified in Vitro Assay of Tyrothricin and Gramicidin"—Tenenbaum, Wasser, and Rosenblum.
- 28. "The Application of the Karl Fischer Method to the Determination of Water in Medicinal Chemicals and Other Drug Products"—Einar Brochmann-Hanssen.
- 29. "A Fluorometric Method for the Determination of Hydrastine in Hydrastis"—Einar Brochmann-Hanssen.
- 30. "A Method for Evaluating Salicyl-type Analgetics"—Donald C. Brodie, E. Leong Way, and Glenn A. Smith, Jr.

- 31. "Polarographic Characteristics of Phenylmercuric Nitrate"—Walter L. Wuggatzer and John M. Cross.
- 32. "A Study of the Amperometric Titration of Bismuth with 8-Hydroxyquinoline and Its Application to Compounds of Medicinal Importance"—Dale W. Blackburn and John E. Christian.
- 33. "The Preparation of o-Carvacrotinic Acid and Some of Its Derivatives"—Hugh D. Bryan, Paul J. Jannke, Joseph B. Burt, and LaVerne D. Small.
- 34. "The Physics of Tablet Compression"— T. Higuchi, R. Arnold, S. Tucker, and L. W. Busse.
- 35. "Chromatographic Separation and Determination of Mixtures of Parahydroxybenzoate Esters"—T. Higuchi, K. P. Patel, J. Landsman, and E. R. Bonow.
- 36. "Separation and Analysis of APC Combination by Partition Chromatography"—T. Higuchi and K. P. Patel.
- 37. "Solubilizing Action of Caffeine on Certain Pharmaceuticals"—D. A. Zuck and T. Higuchi.
- 38. "Spray Drying of Insoluble Weakly Acidic Pharmaceuticals Through Their Ammonium Salt"—T. Higuchi, M. Gupta, and L. W. Busse.
- 39. "Pressor Drugs III. Factors Influencing Rate of Deterioration of *l* and *dl*-Epinephrine Solutions"—James C. Munch and Aaron B. Sloane.
- 40. "Rate of Body-Weight Loss as a Measure of Stimulant and Depressant Drug Action"—Albert R. Latven, James C. Munch, and Aaron B. Sloane.
- 41. "Screening of Extracts of Florida Plants for Steroids with Pharmacological Activity"—S. D. Feurt and Lauretta E. Fox.
- 42. "Extracts of a Florida Plant That Produce Physostigmine-like Actions"—W. M. Lauter, Lauretta E. Fox, and W.T. Ariail.
- 43. "Oxytocic Actions of Extracts of Some Florida Mushrooms"—Lauretta E. Fox and Ross Baxter.
- 44. "A Comparison of the Effects of Anthalian, Pyribenzamine and Epinephrine on Smooth Muscle" —Rebecca C. Hellerman and Lloyd W. Hazleton.
- 45. "The Evolution of the Concept of Isotonicity in Pharmacy"—Ivan J. Szekely and Frank M. Goyan.
- 46. "A Slide Rule for Isotonic Calculations"— Ivan J. Szekely, Frank M. Goyan, and Harry W. Hind.
- 47. "A Study of Thermoelectric Methods for Determining Isotonicity"—Frank M. Goyan and Donald Reek.
- 48. "Preliminary Studies on the Pharmacology of Some Chloral and Butyl-Chloral Amides"—Woodrow R. Byrum and Joseph P. LaRocca.
- 49. "The Influence of Several Drugs upon the Acute Toxicity of Gold Sodium Thiosulfate in Mice"—Woodrow R. Byrum and J. Leon Lichtin.
- "An Assay for Solutions of Aminophylline and a Barbiturate"—George F. Hoffnagle and Mary L. Milligan.
  - 51. "Optical Crystallographic Properties of

- Organic Compounds. III. Esters of p-Hydroxybenzoic Acid"—Raymond N. Castle.
- 52. "Bromide Excretion as Affected by Chloride Administration"—Ann Langley Czerwinski.
- 53. "Studies of the Effects of Season, Temperature and Plant Age on Glycoside Production in Digitalis purpurea"—D. P. N. Tsao and H. W. Youngken, Jr.
- 54. "The Effects of Cobalt, Acetate, Ascorbic Acid and Cholesterol Feedings on Growth and Glycoside Biosynthesis in Digitalis"—D. P. N. Tsao and H. W. Youngken, Jr.
- 55. "Studies of Lactic Acid Producing Organisms in a Microbiological Assay of Penicillin"—Muriel C. Vincent, Edward Krupski, and Louis Fischer.
- 56. "A Preliminary Phytochemical Investigation of *Tillandsia usneodes*, L."—M. G. Webber, W. M. Lauter, and P. A. Foote.
- 57. "Amino Acids from the Florida Wool Sponge"—J. E. Wintter and P. A. Foote.
- 58. "The Spectrophotometric Determination of Tetracaine and Neosynephrine Hydrochloride"—Robert I. Ellin.
- 59. "Basic Esters of Cyclopropanecarboxylic Acids"—George P. Hager and Charles I. Smith.
- 60. "The Use of Chloromethylation Products in Preparation of Substances of Pharmacologic Interest"—George P. Hager and Wei-Chin Liu.
- 61. "Glycine Esters of Therapeutically Useful Phenols"—George P. Hager, Pierre S. Anker, and Lee-Ming Chow.
- 62. "The Possible Taeniacidal Action of an Alkaloid-free Fraction of Areca"—Arthur Tye and John W. Nelson.
- 63. "A Preliminary Study of the Mechanism of Glucose Potentiation of Pentobarbital Anesthesia"—John W. Nelson and John F. Bester.
- 64. "A Preliminary Study of the Role of Detoxification in the Resistance of the Male Rat to Barbiturate Anesthesia"—John W. Nelson and Max L. Karsh.
- 65. "Further Studies on the Bioassay of Veratrum Viride"—Howard J. Jenkins and B. V. Christensen.
- 66. "The Estimation of the Potency of Some Analgetics"—Arthur Tye and B. V. Christensen.
- 67. "Studies on the Stabilization of Human Serum Albumin. The Effect of the pH, the Stabilizers, and the Albumin"—John H. Hink, Jr. and Frederick F. Johnson.
- 68. "The Relationship Between Particle Size Distribution in Tablet Granulations and the Variation in Weight of Compressed Tablets"—Helcna Da-Sheu Suen and Dwight L. Deardorff.
- "Filtration of Pharmaceutical Preparations"—Finlay A. Morrison and Noel E. Foss.
- 70. "A Pharmacological Study of 4-Thio-5-(2,4-Dichlorophenyl)-Pentyl-N-Diethylamine Hydrochloride"—Philip V. Hammond and L. D. Edwards.

# (Continued on next page)

# JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION

- 71. "A Physicochemical Study of Gentisic Acid"—Arthur Osol and Lewis J. Kleckner.
- 72. "The Simultaneous Spectrophotometric Determination of Gentisic and Salicylic Acids"—Lewis J. Kleckner and Arthur Osol.
- 73. "The Absorption of Some Purified Cardiac Glycosides After Oral Administration in Cats"—Wallace F. White.
- 74. "North Dakota Volatile Oils. III—Comparative Studies on Coriander Oil"—C. E. Miller.
- 75. "Preparation and Antiseptic Properties of Some Organic Silver Compounds"—Fred P. Siegel and Loyd E Harris.
- 76. "A Pharmacognostical Study of Roots of Different Species of Veratrum"—Heber W. Youngken.
- 77. "The Effect of Contaminants on the Properties of Medicinal Kaolins"—A. Halpern, J. V. Powers, A. J. Monte-Bovi, and A. B. Anderson.
- 78. "The Studies of the Hydrophilic Properties of Possible Ointment Base Constituents. VII. Emulsion Phase Reversal"—A. Halpern, A. J. Monte-Bovi, and H. Koretsky.
- 79. "Micro-Determination of Halogens"—A. J. Monte-Bovi, A. Halpern, and H. Koretsky.
- 80. "Results of the 1950 U. S. P. Collaborative Study of the Vitamin B<sub>12</sub> Assay"—Lloyd C. Miller.
- 81. "The Assay of Aromatic Waters"—Ben F. Cooper and E. A. Brecht.
- 82. "A Chemical Investigation of Veratrum Viride"—Ernest W. Grant and Glenn L. Jenkins.
- 83. "Certain Substituted Thiobisacetamic Acids and Their Salts"—Lewis C. Lappas and Glenn L. Jenkins.
- 84. "The Preparation of Ethylenediamine Type Derivatives of Fluorene and Spirobifluorene"—Edward V Syedres and Glenn L. Jenkins.
- 85. "Cultivation Studies of the Solanaceous Drugs-V. A. Method of Increasing the Productivity of Annual *Hyoscyamus niger*"—William Luopa, Jr., and Willis R. Brewer.
- 86. "The Preparation and Toxicity of Some New Organic Gold Compounds"—J. Leon Lichtin and Loyd E. Harris.
- 87. "A Comparison of Vitamin B<sub>12</sub> Potentiators"—G. B. Griffenhagen and E. F. De Guia.
- 88. "The Stabilization of Albumin During the Ultraviolet Irradiation of Plasma"—John H. Hink, Jr., and Frederick F. Johnson.
- 89. "Use of the Chick Embryo in Determining the Properties of Ointment Bases"—Matthew C. Hunter and F. Jane Smith.
- 90. "The Assay of Ephedrine Colorimetrically in Pharmaceutical Preparations"—L. G. Chatten and L. I. Pugsley.
- 91. "A New Antibiotic Ointment Base"—S. F. Jeffries, Harold A. Nash, Robert L. Harmon, Doris C. Reynolds, and Carl A. Bunde.
- 92. "Titration of Thiamine Salts with Perchloric Acid"—Charles W. Pifer and Ernest G. Wollish.

- 93. "A Stability Study of the Cholinergie Drug Stigmonene Bromide in Ampul Preparations"—E. H. Sakal.
- 94. "Solution Time of Hypodermic Tablets"— E. L. Walters, G. L. Christenson, and H. R. Kreider, Jr.
- 95. "The Evaluation of Banthine in Hyperhidrosis"—Arthur G. Zupko and Leon Prokop.
- 96. "An Argentometric Assay for the Sodimu Salts of Barbital, Phenobarbital and Pentobarbital" —George B. Griffenhagen and Edward S. Brady.
- 97. "Chromatographic Analysis of Some Terpenes"—K. C. Varma, J. B. Burt, and A. E. Schwarting.
- 98. "The Effect of Wool Fat and Some of Its Constituents on the Absorption of Drugs Through the Intaet Skin"—Vishnu Narain Bhatia and Louis C. Zopf.
- 99. "Method to Test Antitussive Agents"— Joseph W. E. Harrisson, Clara M. Ambrus, and Julian L. Ambrus.
- 100. "Effect of Histamine, Antihistamines, and Histamine Desensitization on Gastric Secretion and Uleer Formation in Rats and Guinea Pigs"—Julian L. Ambrus, Clara M. Ambrus, and Joseph W. E. Harrisson.
- 101. "The Influence of Tetraethylthiuram Disulfide (Antabuse) on Growth and Reproduction of the Albino Rat"—Harald G. O. Holek, R. Wm. Zimmerle, and Paul M. Lish.
- 102. "Formulation of Pharmaceuticals for the Diabetic. I. Preliminary Studies in the Induction of Alloxan Diabetes in Rabbits"—Gordon B. Stirland and George E. Crossen.
- 103. "Comparative Potency of *d*-Tubocurarine Hydrochloride and Dimethyl Ether *d*-Tubocurarine Iodide"—E. E. Swanson, W. R. Gibson, and C. E. Powell.
- 104. "Report on Antibiotic Activity of Seaweed Extracts"—Robertson Pratt, Henry Mantner, Yi-Hshien Sha, Grace Gardner, and Jean Dufrenoy.
- 105. "The Effect of X-Irradiation on Intestinal Absorption and on Thyroid Uptake of the Iodide Ion Using I<sup>131</sup>"—Patrick F. Belcastro, H. George DeKay, and John E. Christian.
- 106. "Fungicidal and Fungistatic Evaluation of Certain Phenols and Surface-Active Agents"—George C. Walker, C. L. Porter, and H. George DeKay.
- 107. "Solvent Considerations in Fungicidal Testing"—George C. Walker, C. L. Porter, and H. George DeKay.
- 108. "A Study of Tablet Compression"—Earl Brake, Glen J. Sperandio, and H. George DeKay.
- 109. "A Statistical Study of Some Disintegrating and Binding Agents in Certain Compressed Tablets"—E. A. Holstius and H. George DcKay.
- 110. "Studies on Species of Asclepias I and II. Introduction and a Comparative Study of the Roots."—W. E. Hassan, Jr., H. W. Youngken, and M. W. Quimby.

- 111. "Studies on Species of Asclepias III. A Comparative Study of the Stems"—W. E. Hassan, Ir., H. W. Youngken, and R. W. Vander Wyk.
- 112. "Studies on Species of Asclepias IV. A Comparative Study of the Leaves"—W. E. Hassan, Jr., H. W. Youngken, and M. W. Quimby.
- 113. "Studies on Species of Asclepias V. Chemistry"—W. E. Hassan, Jr., and E. V. Lynn.
- 114. "Studies on Species of Asclepias VI. Toxicology, Pathology and Pharmacology"—W. E. Hassan, Jr., and H. L. Reed.
- 115. "General Properties of Terramycin in Pharmaceutical Preparations"—O. R. Sumner.
- 116. "A Medicinal Plant Survey of Arizona"-Frederick E. Branstetter and Willis R. Brewer.
- 118. "The Irritant Action of Certain Drugs on the Intestinal Mucosa"—A. L. Picchioni and L. D. Edwards.
- 119. "Rapid Tissue Dehydration in Permanent Slide Preparations"—Arnold C. Neva.
- 120. "A Colorimetric Assay for Pilocarpine and Its Salts"—J. W. Webb, A. J. McBay, and R. S. Kelley.

## PRACTICAL PHARMACY

The Section on Practical Pharmacy is scheduled to meet on Wednesday, Thursday, and Friday afternoons, August 29, 30, and 31. Raymond E. Schmitz will preside over the meetings of the Section, and Elmer M. Plein is the Secretary.

On Wednesday afternoon, August 29, the Section has arranged to sponsor a symposium on Pharmacal Dermatology. The papers scheduled for presentation are listed below, but they are not in the order in which they will be presented at the various sessions of the Section.

The program of the symposium on Dermatology follows the list of papers.

- 2. "Practical Suggestions for Pharmacists Planning to Advertise"—Robert L. Pickering.
- 3. "Improving Compounding Practices"—Samuel W. Goldstein.
- 4. "Prescription Survey of Birmingham, Alabama, for May, 1950"—Robert A. Wheeler and C. Lee Huyek.
- "Dermatological Action of Vleminekx' Solution"—C. Lee Huyek.
- 6. "Recent Advances in Dermatology of Interest to the Pharmacist"—C. Lee Huyck.
- 7. "The Effect of Solubilizing Agents on Antacids: A Method for Extemporaneous Formulations"—A. J. MonteBovi, A. Halpern, and H. Koretsky.

- "A Powdered Washable Ointment Base"— John B. Ward and Glen J. Sperandio.
- 9. "Hermetically Packaged Water and Surgical Fluids, A Pharmacist's Responsibility"—George F. Archambault.
- "The Texas Prescription Survey for 1949"—
   G. Mittelstaedt and J. W. Boenigk.
- 11. "What Every Pharmacist Should Know about Cortisone"-J. F. Badgett.
- 12. "The Suspending Capacity of Colloidal Aluminum Magnesium Silicate"—Joseph J. Pienta, Jr., Arnold D. Marcus, and Byrl E. Benton.
- 13. "A Study of Aromatic Waters Prepared by 'Solubilizing' Oils"—Carroll V. Steen, Arnold D. Marcus, and Byrl E. Benton.
- "A Pharmaceutical Study of Activated Charcoal"—William J. Husa and Oliver M. Littlejohn.
- 15. "Formulation of a Compatible Lotion Vehicle"—Warren McConnell and H. George Dekay.
- 16. "An Evaluation of the Enteric Properties of Certain Cellulose Derivatives"—H. J. Antonides and H. George Dekay.
- 17. "Formulation of a Soluble Tablet"—William H. Ray and H. George DeKay.
- 18. "How Practical is Practical Pharmacy?"—Alice Esther Garvin.
- 19. "Prescription Blanks and How to Get Them Printed FREE"-F. W. Kohler.
- 21. "A Modified Method for the Preparation of Orange Syrup and Lemon Syrup"—John A. Nees and Earl P. Guth.
- 22. "A Method for the Evaluation of Tablet Lubricants"—Babubhai Chaturbhai Patel and Earl P. Guth.
- 23. "Suspensions of Sulfonamides for Oral Administration"—Wendle L. Kerr and Louis C. Zopf.
- 24. "A Study of Silicones in Dermatological Preparations"—Joy Bickmore and Elmer M. Plein,
- 25. "The Use of Kaolin in Stabilizing Capsules of Eutectic Mixtures against Liquefaction"—lgnatious J. Bellafiore.
- 26. "A Survey of Dermatological Opinion Regarding the Deletion of Wool Fat from the Pharmacopeial Ointment Recipes"—J. Leon Lichten and Aaron Lichten.

## Symposium on Pharmacal Dermatology

- 1. "What the Dermatologists Desire in a Topical Preparation"—Dr. Samuel Perrin.
- 2. "What the Pharmacists Desire in a Topical Preparation"—Frederick Lascoff.
- 3. "Methods of Preparing Emulsion Vehicles"—Leslic Ohmart.
- "Methods of Evaluating Emulsion Vehicles"
   Dale E. Wurster.

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6. "Prescription Uses of the Emulsion Vehicle" —Speaker to be announced.

The members of the committee for the Symposium are: A. J. MonteBovi, Frederick Lascoff, Louis C. Zopf, Louis Busse, Mrs. Veronica Conley, Dwight Deardorff, Elmer M. Plein, and Alfred Halpern, Chairman.

## EDUCATION LEGISLATION

The program of the Section on Education and Legislation as arranged by Chairman David W. O'Day and Secretary J. L. Voigt, includes discussion of a variety of topics of interest to practicing pharmacists as well as to teachers and law-enforcement officials. The program of papers as submitted, but not necessarily in the order of their presentation, follows:

- "Apprenticeship or Internship in Pharmacy"
   —Morris M. Wolfred.
- 2. "A Survey of Prescription Prices and Public Opinion"—T. T. Dittrich.
- 3. "A Practical Approach to Teaching Pharmacy"—T. T. Dittrich.
- 4. "A Survey of the Status of History of Pharmacy in American Pharmaceutical Education"—Glenn Sonnedecker and George Urdang.
- 5. "A Course in Detailing for Pharmacy Students"—Robert A. Walsh.
- 6. "Pharmacy Extension Service"—Louis E. Kazin.
- 7. "Fundamentals of Salesmanship"—Marke Cundiff
- 8. "A Laboratory Project in Vitamin Deficiencies"—Ann Langley Czerwinski.
- 9. "Education Versus Legislation"—L. L. Riggs.
- 10. "Orientation of Teaching Personnel"—Samuel S. Liberman.

## ECONOMICS.

Three sessions of the Section on Pharmaceutical Economics will be held on Wednesday, Thursday, and Friday afternoons, August 29, 30, 31, respectively, under the chairmanship of John A. MacCartney. Secretary Francis J. O'Brien, in arranging the program, has indicated that there will be forum discussions on the following subjects: "Good Businessmen as Well as Good Professional Men"; and "Detailing Physicians and Professional Promotional Programs." The first of these will feature addresses by Stephen Wilson, Sol Garfinkle, and Jacob Eisen. The latter topic will be discussed by Harry J. Towers and Catherine M. Simon.

The titles of other papers follow. They are not arranged in the order of presentation at the meetings.

- 1. "Prescription Trends"-William T. Doyle.
- "Balance and Design in Window Trimming"
   Louise Hunkins.
- 3. "Prescription Pricing Schedules"—A. L. Malmo.
- "Are You Charging Too Much for Prescriptions?"—Irving Rubin.
- "The Economic Feasibility of the Five or Six Year Course"—Alvah G. Hall.
- 6. "A Comparison of Studies in Retail Mortality, with Emphasis on Retail Drug Stores"—George B. Hook.
  - 7. "What Is a Profit?"—Harold W. Pratt.
- "Cost Control and Its Effect on Net Profit"
   Joseph D. McEvilla.
- 9. "What Should Be an Inventory Turnover in the Prescription Department?"—John D. Ashmore.
- 10. "The Economics of the Prescription Pharmacist"—A. L. Paynter.
- 11. "Prescription Survey of Birmingham, Alabama—May, 1950"—C. Lee Huyck.
- 12. "Eliminating Handicaps in Pharmacy Administration"—Horace J. Fuller.
- 13. "Application of Management Principles to Drug Stores and Hospital Pharmacies"—Michael M. Sirhal.

## HISTORICAL PHARMACY

As in previous years, the programs of the Section on Historical Pharmacy and the American Institute of the History of Pharmacy will be merged with proper provision for individual business sessions for both.

A joint session will be held on Wednesday afternoon, August 29, with Chairman H. George Wolfe presiding. The following papers will be presented at this session: "C. Lewis Diehl—The Great Southern Pharmacist," by C. Lee Huyck; "The University of Utah Department of Pharmacy, 1907–1927," by Charles E. Parkin and George E. Osborne; "Shakespeare's Knowledge of Drugs and Their Action," by W. D. Wilcox; and "A History of the New York German Apothecaries' Society," by Curt P. Wimmer.

The second joint session will be held on Thursday afternoon, August 30, with Chairman H. George Wolfe presiding. Following the presentation of the papers, the Section will transact its business including the election and installation of officers. The papers and their authors are: "Hazards of Historical Research," by George A. Bender; "Botica, the California Formulary," by George B. Griffenhagen; "Chap-

ters in the History of Pharmacy in South Carolina," by J. H. Hoch; "The Influence of the German Apotheker on American Pharmacy," by Curt P. Wimmer; and "Pharmaceutico-Historical Meetings in Europe in 1950," by George Urdang.

The third joint session will feature the program of the American Institute of the History of Pharmacy with its president, Arthur H. Uhl, presiding. Papers to be presented at this session and their authors are as follows: "The First Ten Years of the American Institute of the History of Pharmacy," by George Urdang; "A Short History of Glycosides," by G. R. Paterson; "Was the Sugar-Coated Pill an American Invention?" by Glenn Sonnedecker; "Development of the College of Pharmacy at the University of the Phillipines," by Jesusa Concha; and "C. S. Rafinesque and American Pharmacy," by Alex Berman.

## A.A.C.P.

For its 52nd annual meeting, August 25, 26, 27, and 28, the American Association of Colleges of Pharmacy has scheduled three sessions, a joint A. A. C. P. and N. A. B. P. Banquet, five Teachers' Conferences, a Joint Teachers' Conference, and an Audio-Visual Materials Exhibit.

The General Sessions of the A. A. C. P. open on Sunday afternoon at 2 o'clock and additional sessions are scheduled for Monday, August 27, at 2:00 p. m., and Tuesday, August 28, at 2:00 p. m.

Highlights of these general sessions will be the report of President Hugo H. Schaefer; the address of the president-elect, J. Allen Reese; an address on "The Research Grants and Fellowship Program of the National Institute of Health," by Kenneth M. Endicott, M.D., Scientific Director, Division of Research Grants; an address on "Needs of Colleges of Pharmacy," by Richard A. Deno, Director of Educational Relations of the American Council on Pharmaand "The Current and ceutical Education; Future Programs of the American Foundation for Pharmaceutical Education," by W. Paul Briggs. There will also be a symposium on "Acceleration of the Educational Program."

Reports of various committees and conferences will be given throughout the three general sessions, but the addresses referred to above, with the exception of the address of the President, will all be given at the second general session on Monday afternoon, August 27.

The Teachers' Conferences in the various specialties of the pharmacy curriculum are to

be held Monday morning, August 27, with the Conference of Teachers of Graduate Instruction and the Joint Teachers' Conference scheduled for Tuesday morning, August 28.

The Conference of Teachers of Pharmacy will be presided over by Donald C. Brodie. Chauncey I. Cooper will preside over the Conference of Teachers of Pharmaceutical Economics. P. J. Jannke is chairman of the Conference of Teachers of Chemistry, and Edward P. Claus heads the Conference of Teachers of Biological Sciences. Heber W. Youngken, Jr., will preside over the Conference of Teachers of Graduate Instruction.

The joint dinner of the American Association of Colleges of Pharmacy and the National Association of Boards of Pharmacy will be held Monday evening, August 27. G. Lester Anderson, Dean of Administration, the University of Buffalo, will deliver an address on "The University and Professional Education." President Hugo H. Schaefer will preside as toastmaster.

## A.C.A.

Four sessions of the meeting of the American College of Apothecaries will be held in connection with the convention of the A. Ph. A., beginning Sunday afternoon, August 26, at 1:30 p. m. Additional sessions will convene on Monday, August 27, at 9:30 a. m. and 1:30 p. m., and on Tuesday, August 28, at 9:30 a. m. The Tuesday session will very likely carry through the afternoon as well, and a part of this session will be "closed" for the transaction of business by the members of the College. All other sessions will be open and non-members of the College are welcome to attend. The Board of Directors of the College will meet on Saturday evening, August 25, and Sunday morning, August 26.

The opening session on Sunday afternoon will be highlighted by the annual report and address of President A. R. Granito and the reports of other officers.

At a dinner on Sunday evening at 6:30, the College will be addressed by Dr. George Urdang, Director of the American Institute of the History of Pharmacy, who will receive the Lascoff Award, given annually by the Institute for outstanding service to the profession.

The second session will be held on Monday morning, August 27, and will include papers on "Colors, Odors, Flavors, and Dollars," by Pierre Smith, and Joseph P. Matousek; and "Dermatological Preparations," by Louis C. Zopf; a panel discussion moderated by Ronald V.

(Continued on next page)

Robertson on "Buying Business and Professional Prestige," led by LeRoy Weidle, Jr.; and "How Much of Your Business Can You Operate at a Loss and Still Stay in Business?" by N. T. Peterson.

The third session includes five papers of which the following three are given under the general heading of "Professional Activities of Interest": "Why Pharmacists Should Manufacture Parenteral Medications," by Sister Mary John; "A New Apothecary Shop," by J. B. Heinz; and "A Professional Relations Program by Pharmacists," by Lou Longaker. Additional papers will be entitled "Pharmacist-Pharmaceutical Manufacturer Relations," by Homer A. George; and "Prescription Pharmacy Inventory Control," by Louis J. Fischl.

The meetings on Tuesday will be divided between the "closed session" at which committee reports, nominations and election of officers and other business of the College will be transacted; and panel discussions on "Economic Ills, Can They Be Solved by Business or Professional Cures?" with J. K. Attwood as moderator; and C. R. Bundt and Martin S. Ulan as discussion leaders and Calvin Berger and Herbert Flack as discussants.

## N.A.H.P.

The program of the 47th annual convention of the National Association of Boards of Pharmacy covers four sessions and the joint banquet with the American Association of Colleges of Pharmacy. Members of the Association will also join in a group luncheon at noon on Monday, August 27.

The first general session will be opened by President F. Royce Franzoni on Monday, August 27, at 10:00 a. m. In addition to the address of the president and the reports of officers, a number of committees will make their reports.

Following the group luncheon the second session will convene on Monday, August 27, at 2:00 p. m., and will be devoted to the program of the Bureau of Law Enforcement under the chairmanship of Wilbur E. Powers.

The third and fourth sessions of the N. A. B. P. meeting will be held on Tuesday morning and afternoon, respectively.

Professor Leslie M. Ohmart will conduct a Seminar on Licensure Examinations at the morning session and this will be followed by a general discussion pertaining to Validity and Grading of Examinations.

## A.S.H.P.

Members of the American Society of Hospital Pharmacists will convene for their eighth annual meeting on August 26 to 28. The meeting will be presided over by President I. Thomas Reamer. Regular A. S. H. P. sessions will be held Monday and Tuesday mornings and afternoons with the House of Delegates meeting on Sunday, August 26 at 4 p. m. Representatives from the local affiliated chapters, the executive committee and chairmen of special committees make up the House of Delegates. They will review the Society's activities and make recommendations for action on the following days.

Highlighting the program will be a panel discussion on "Minimum Standards—How They Affect the Hospital and the Pharmaey," with participants from the various medical and hospital organizations discussing the subject. Organizations represented in these discussions include: American College of Surgeons; American Hospital Association; American Medical Association; Catholic Hospital Association; American Pharmaceutical Association and the American Society of Hospital Pharmacists.

Other features scheduled for the Monday afternoon session include, "The Clinical Center of the National Institutes of Health—Facilities for Pharmacy Service," by Dr. John Trautman, Director; "Monthly Report System," by George F. Archambault; and "Current Investigational Drugs," by Dr. Paul Wermer, of the Council on Pharmacy and Chemistry of the American Medical Association.

Following tradition, a group breakfast will be held on Tuesday morning, August 28, for all members of the A. S. H. P. and guests. The program has been arranged by a committee headed by William Slabodniek.

## National Association of State Pharmaceutical Association Secretaries

The State Pharmaecutical Association Secretaries will begin their meetings on Saturday, August 25. They will be presided over by Dal Bruner, president of the Conference. Topics for discussion as outlined by John J. Debus, chairman of the program committee include the discussion of Public Relations, Professional Relations, Trade Relations, Drug Store Management, Legislation, and Association Activities and Management.

Meetings are seheduled for all day Saturday. August 25, and Sunday, August 26, with a final session seheduled Friday afternoon, August 31.

# PRESCRIPTION PRODUCTS

All items on which information has been received in the past thirty days are reported here. Manufacturers are urged to send details of their new products as early as possible, so that pharmacists, through these pages, will have full information at the same time, or even before, they are detailed to the physician. For inclusion in this free editorial department, send descriptive literature to the Journal of the American Pharmaceutical Association, 2215 Constitution Avenue, N. W., Washington, D. G. Where possible, all descriptions should follow the style shown on these pages.

## BUTISOL-BELLADONNA ELIXIR

Description: Liquid, containing in each 5 cc.: butisol sodium. 10.0 mg.; and extract belladonna, 15.0 mg.

Indications: General antispasmodic and sedative in treatment of functional colonic disorders such as irritable colon, emotional diarrhea; pyrosis, peptic ulcer, pyloro-duodenal irritability; functional dysmenorrhea; diarrhea due to gastro-enteritis, regional enteritis, ulcerative colitis.

Administration: 1 teaspoonful three times daily, a half hour before meals, or as directed by physician. Form Supplied: Pint and gallon bottles.

Source: McNeil Laboratories, Inc., Philadelphia, Pa.

## CETHYTIN AND CETHYLOSE

Description: Cethytin—tablets containing: sodium carboxymethylcellulose, 500.0 mg.; and diacetyldihydroxyphenylisatin, 1.25 mg. Cethylose—tablets containing carboxymethylcellulose, 500.0 mg.

Indications: Cothytin—for use in bulk laxative therapy; gradually replaced by Cothylose.

Administration: As directed by physician. Form Supplied: Bottles of 100 and 1000.

Source: B. F. Ascher & Co., Inc., Kansas City, Mo.

### DODEX A-B-D DROPS

Description: Solution containing in cach 0.6 cc.: vitamin  $B_{12}$ , 5 micrograms; thiamine hydrochloride, 1.0 mg.; riboflavin, 0.25 mg.; pyridoxine hydrochloride, 1.0 mg.; panthenol, 2.0 mg.; niacinamide, 10.0 mg.: vitamin A, 5000 U. S. P. units; and vitamin D, 1000 U. S. P. units.

Indications: Multivitamin nutritional supplement for infants and children; also for pregnant and nursing women and for convalescents.

Administration: 0.6 ee., or as directed by physician.

Form Supplied: 15-cc. vials, with calibrated dropper.

Source: Organon, Inc., Orange, N. J.

## ESKAPHEN B TABLETS

Description: Tablets, each containing: phenobarbital, 16.0 mg.; and thiamine hydrochloride, 5.0 mg. Each tablet supplies nearly three times the recommended daily allowance of thiamine.

Indications: For the tense and nervous patient with poor appetite. Provides therapeutic relaxation and restores appetite. In the symptomatic treatment of neurasthenic conditions characterized by anorexia, disturbed sleep, subjective fatigue, irritability, and emotional instability.

Administration: 2 to 6 tablets daily, in divided doses.

Form Supplied: Bottles of 50 tablets.

Source: Smith, Kline & French Laboratories, Philadelphia, Pa.

## FERROVITE IMPROVED TABLETS

Description: Yellow coated tablets, each containing: ferrous sulfate exsiccated, 3.0 gr.; thiaminc hydrochloride, 2.0 mg.; riboflavin, 1.0 mg.: and niacin, 10.0 mg.

Indications: For ferrous iron therapy in iron deficiency anemias. Recommended for prophylactic use where excessive drain on iron reserves is suspected.

Administration: Orally. In iron-deficiency anemias: 2 to 3 tablets three or four times daily, after meals and upon retiring. Prophylactic dose: 1 tablet two or three times daily.

Form Supplied: Bottles of 100, 500, 1000, and 5000.

Source: Physicians' Drug & Supply Co., Philadelphia, Pa.

## **GERICAPS**

Description: Lipotropic and vitamin capsules, each containing: choline dihydrogen eitrate, 500.0 mg.; inositol, 200.0 mg.; rutin, 20.0 mg.; ascorbie

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JULY



## PRESCRIPTION PRODUCTS (Cont.)

acid, 12.5 mg.; vitamin A, 1000 units; thiamine hydrochloride, 1.0 mg.; riboflavin, 1.0 mg.; pyridoxine hydrochloride, 0.25 mg.; niacinamide, 4.0 mg.; and calcium pantothenate, 1.0 mg.

Indications: Disturbed cholesterol metabolism of adults and children; as a supplement to low-cholesterol diets; to assist against formation of "giant cholesterol molecules," to help cstablish cholesterol-phospholipid ratio favorable to prevention or amelioration of atherosclerosis; and to prevent or ameliorate retinopathy.

Administration: Orally. Prophylactic dose: 1 to 3 capsules daily. Therapeutic dose: 2 capsules three times daily.

Form Supplied: Bottles of 100.

Source: Sherman Laboratories, Detroit, Mich.

### ITRUMIL

Description: Tablets, each containing 50.0 mg. Itrumil (5-iodo-2-thiouracil sodium salt).

Indications: For treatment of hyperthyroidism; causes rapid remission of symptoms of thyrotoxicosis, but is non-goitrogenic in most cases.

Contraindications: Pregnancy, lactation, iodism. Administration: 150.0 to 300.0 mg. in divided doscs daily; as directed by physician.

Form Supplied: Bottles of 100 and 1000.

Source: Ciba Pharmaceutical Products, Inc., Summit, N. J.

## MENO-SED

Description: Tablets, each containing: naturally occurring water-soluble conjugated estrogens equivalent in biological activity to sodium estrone sulfate, 0.42 mg.; phenobarbital, 1-4 gr.; thyroid, 1-8 gr.; and homatropine methylbromide, 1-50 gr.

Indications: Therapy of the menopausal syndrome.

Administration: For temporary rapid relief 6 tablets daily. Maintenance dose, 1 to 3 tablets daily.

Form Supplied: Bottles of 100, 500, and 1000.

Source: Columbus Pharmacal Co., Columbus, Ohio.

## MERTHEOSAL

Description: Solution, containing in each ec.: mersalyl (Sodium salt of mercury salicylallylamide-

o-acetic acid), 0.1 Gm.; and theophylline in aqueous, slightly alkaline solution, 50.0 mg.

Indications: Treatment of cardiac cdcma, congestive heart failure, and chronic nephrosis.

Administration: 1 to 2 cc. intramuscularly or intravenously once each week.

Form Supplied: 2-cc. ampuls in boxes of 25 and 100.

Source: Columbus Pharmacal Co., Columbus, Ohio.

## METHAFROME TABLETS

Description: Tablets, each containing 20.0 or 50.0 mg. Methafrome, brand of visammin (khellin) Indications: Produces coronary vasodilation by direct action without any cardiac stimulation.

Somewhat cumulative for prolonged action. Indicated in angina pectoris, cor pulmonale, and bronchial asthma.

Administration: Orally, 200.0 to 300.0 mg. daily adjusted according to response of patient and maintenance needs.

Form Supplied: Bottles of 100, 500, 1000, and 5000.

Source: Physicians' Drug & Supply Co., Philadelphia, Pa.

## METHCOLATE

Description: Lipotropic preparation, each tablet containing: choline bitartrate, 350.0 mg.; and dl-methionine, 167.0 mg.

Indications: In treating various liver conditions including hepatic damage and deposition of cholesterol in atherosclerosis.

Administration: 12 tablets daily in divided doses. Form Supplied: Bottles of 100 and 1000.

Source: B. F. Ascher & Co., Inc., Kansas City, Mo.

## MYOCARDONE

Description: Cardiac drug in tablet form derived from animal heart muscle.

Indications: Treatment of angina pectoris, and symptoms of cardiac decompensation such as dyspnea, edema, orthopnea and lung congestion.

Administration: As directed by physician.

Form Supplied: Bottles of 100 11/rgr. tablets.

Source: Cliemico Laboratories, Inc., Indianapolis, Ind.

ULY

## PALIVITE

Description: Solution containing: vitamin B<sub>12</sub>, U. S. P. crystalline, 10 mcg.; folic acid, 5.0 mg.; and 2 U. S. P. units liver extract crude, q.s. 1 cc.

Indications: For pernicious anemia.

Administration: 1 to 5 cc. per week (divided doses) intramuscularly only, until blood picture is normal. Maintenance dose 1 cc. once, twice, or four times monthly, as indicated.

Form Supplied: 10-cc. vials.

Source: Sherman Laboratories, Detroit, Mich.

## PENFONYLIN

Description: Tablets, containing 200,000 units of crystalline penicillin G potassium and 0.167 Gm. each of sulfadiazine, sulfamerazine, and sulfamethazine.

Indications: Antibacterial therapy. In treatment of hemolytic streptococcic infections, acute sinusitis due to susceptible organisms, urinary tract infections, pneumococcic infections, staphylococcic infections, gonorrhea, and as an adjuvant in some cases of coccal meningitis.

Administration: One-balf hour before meals and at bedtime, dosage as directed by physician. In cases where the response of the patient is not prompt, the supplemental use of parenteral penicillin or another antibiotic is advised.

Form Supplied: Bottles of 30.

Source: E. R. Squibb & Sons, New York, N. Y.

## PENTIDS

Description: Tablets, each containing 200,000 units crystalline penicillin G potassium buffered with calcium carbonate.

Indications: Antibacterial therapy. In treatment of hemolytic streptococcic infections, staphyloinfections, and pneumococcic infections.

Administration: One-half hour before or at least two hours after meals, dosage as directed by physician.

Form Supplied: Bottles of 12 and 100.

Source: E. R. Squihb & Sons, New York, N. Y.

## PROTAMINE SULFATE

Description: Intravenous solution containing in each vial: protamine sulfate, 50.0 mg.; and sodium chloride, 45.0 mg.

Indications: Neutralizes the effect of heparin. Also indicated in hemorrhagic diseases, thrombocytopenic purpura, and thrombocytopenia following X-ray therapy.

Administration: Intravenously, as directed by physician.

Form Supplied: Combination packages (protamine and 5-cc. ampul sterile water) of 1, 5, and 25.

Source: Upjohn Company, Kalamazoo, Mich.

## PROZOIN

Description: Contact fungistat containing: propionic acid, 10%; benzoin, 14%; and ethyl and isopropyl alcohols, q.s.

Indications: In treatment of Athlete's foot, ringworm of the scalp, hands or trunk and other fungus infections of the skin.

Administration: Topical application, as directed by physician.

Form Supplied: 2-oz. bottles, cartons of 1 doz.

Source: Columbus Pharmacal Co., Columbus, Ohio.

## SALAMIDE

Description: Tablets, each containing Salicylamide (o-Hydroxybenzamide), 5.0 gr., a derivative of salicylic acid.

Indications: For use in treatment of rheumatoid arthritis, acute rheumatic fever, fibrositis, gout, and osteo-arthritis. Also, as an analgesic for muscle and joint pains, and an antipyretic in colds and grippes, particularly with muscle aches.

Administration: 1 to 3 tablets repeated if necessary every three or four hours. For continued usage, as directed by physician.

Form Supplied: Bottles of 100 and 1000.

Source: Columbus Pharmacal Co., Columbus, Ohio.

## SLOWTEN ELIXIR

Description: Liquid, each teaspoonful containing: phenobarbital, 16.2 mg.; thiaminc hydrochloride, 5.0 mg.; and alcohol, 15%.

Indications: Useful where there is evidence of a mild  $B_1$  deficiency; in the symptomatic treatment of conditions characterized by anorexia, disturbed sleep, subjective fatigue, irritability, and emotional instability.

Administration: Adults: 1 teaspoonful after each meal and 1 or 2 teaspoonfuls at bedtime, or as directed by physician. Children (over one year): 1 or 2 teaspoonfuls a day.

Form Supplied: Pint and gallon bottles. On prescription only.

Source: The E. L. Patch Company, Stoncham, Mass.

(Continued on next page)



## TITRALAC LIQUID

Description: Each teaspoonful (5 cc.) equal to 2 titralac tablets (1 Gm. powder).

Indications: For simple hyperacidity or as an aid in management in peptic ulcer.

Administration: In gastric hyperacidity: 1/2 to 1 teaspoonful after meals. 1n ulcer management: 1 teaspoonful before meals followed by 1/2 to 1 teaspoonful at hourly intervals.

Form Supplied: Bottles of 8 fluidounces.

Source: Schenley Laboratories, Inc., Lawrence-burg, Ind.

## **VARIDASE**

Description: An enzyme product combining treptokinase and streptodornase.

Indications: In surgery and in skin grafting for the removal of dead tissue and to hasten tissue regrowth. It is indicated in the treatment of hemothorax, hematoma, empyema, osteomyelitis, drain ing sinuses, tuberculous abscesses, infected wounds or ulcers, severe burns, and other chronic suppurations.

Administration: May be injected directly into a body cavity or applied locally. Not recommended for intravenous use.

Form Supplied: Vials containing 100,000 units of streptokinase and 25,000 units of streptodomase.

Source: Lederle Laboratories Division, American Cyanamid Company, New York, N. Y.

## Other New Products

(Chemicals, clinical trial drugs, diagnostic aids, and equipment for the retail and hospital pharmacy)

## Cytidine Sulfate Now Available

Schwarz Laboratories, Inc., has recently made available cytidine, one of the nucleosides of ribonuclcic acid, in the form of cytidine sulfate. An important research chemical in studies of biochemical reactions and metabolic functions, cytidine has been found to possess growth-promotion activity for certain organisms. Further information may be obtained directly from Schwarz Laboratories, Inc., 202 E. 44th St., New York 17, N. Y.

Editor's note: It has just been brought to our attention that through an error in proofreading, the index appearing in the May and June issues referred to pages 221 through 228 as being in the March issue, when they actually appeared in April. We regret this error and apologize for any inconvenience it caused our readers.



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Tristerone, June, 1951, p. 353
Wydase vet., April, 1951, p. 225
Wychol capsules, April, 1951, p. 225

JULY.



Council descriptions of new drug products only are published regularly in This Journal as they are accepted. Rules upon which the Council bases its action appeared in the July (7:320) 1946 issue, and may be secured in pamphlet form upon request to the Secretary, Council on Pharmacy and Chemistry, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.

BACITRACIN.—Bacitracin consists of the antibiotic substance or substances produced by the growth of *Bacillus subtilis*, strain TRACY I. It complies with the requirements of the Federal Food and Drug Administration. The unit of bacitracin is equivalent to 26 micrograms of the Food and Drug Administration working standard.

Actions and Uses.—Bacitracin inhibits the growth of many gram-positive organisms, such as streptococci, stapbylococci and pneumococci and eertain gram-negative cocci, such as gonococci and meningococci. It is ineffective against most gram-negative organisms. Bacitracin is a polypeptide eapable of producing renal tubular necrosis when administered parenterally. For this reason, bacitracin must be applied locally only; it must never be administered intramuscularly or intravenously. Bacitracin is destroyed in the gastrointestinal tract and oral administration of even large quantities does not result in detectable blood levels.

Bacitracin may be used locally in the form of an ointment for pyodermas or other superficial infections due to gram-positive organisms. It is frequently effective against organisms resistant to penicillin. It has a low sensitizing power and may be used on the skin or in the eye.

Dosage.—In superficial skin or oeular infections due to susceptible organisms, bacitracin may be applied locally once or twice daily, in the form of an ointment containing 500 units per gram.

Ointment Bacitraein: 15-Gm. tubes. An ointment containing 500 units of bacitraein in each Gm. Abbott Laboratories, North Chicago, Ill.

Ophthalmic Ointment Bacitracin: 4-Gm. tubes. An ointment containing 500 units of bacitracin in each Gm. Abbott Laboratories, North Chicago, Ill.

Ointment Bacitracin: 14.2- and 28.4-Gm. tuhes. An ointment containing 500 units of bacitracin in each Gm. Commercial Solvents Corporation, New York. N. Y.

Ophthalmic Ointment Bacitracin: 3.54-Gm. tubes. An ointment containing 500 units of bacitracin in each Gm. Commercial Solvents Corporation, New York, N. Y.

BENZPYRINIUM BROMIDE.—Stigmonene Bromide (Warner).—1-Benzyl-3-(dimethylcarbamyloxy) pyridinium bromide.—C<sub>15</sub>H<sub>17</sub>BrN<sub>2</sub>O<sub>2</sub>.—M.W. 337.22.—The structural formula for benzpyrinium bromide may be represented as follows:

Actions and Uses.—Benzpyrinium bromide is a cholinergic drug having the same actions and uses as neostigmine. See general statement on neostigmine.

Dosage.-For prevention of postoperative intestinal atony or postoperative abdominal distention and urinary retention, 0.5 mg. by intramuscular injection immediately following the conclusion of the operation and every three to four bours until a total of six injections has been given. For treatment of postoperative distention, 0.5 mg. by intramuseular injection followed by a small low enema 20 to 30 minutes after injection. The injection should be repeated every three hours until a total of not less than six doses has been administered. Treatment of established postoperative urinary retention, 0.5 mg. by intramuseular injection, followed by application of heat to the lower part of the abdomen. This dose should be repeated at three-hour intervals until a total of five doses has been given. If urine is not spontaneously voided after the first injection, eatheterization should be performed one bour after the first dose.

Physical Properlies: Benzpyrinium bromide is a white to slightly yellow crystalline powder with olmost no odor. It melts between 114 and 120° C. It is very soluble in olcohol and water, and practically insoluble in ether. A 1 per cent solution of benzypyrinium bromide has a pH between 4.5 and 5.5.

[For more detailed information regarding action and uses and for tests and standards, see J. Am. Med. Assoc., 145: 487 (1951).]

(Continued on next page)

JULY

NEW AND NONOFFICIAL REMEDIES

Benzpyrinium • • • • • • • • from page 419

Solution Stigmonenc Bromide 1:2,000: 1-cc. ampuls, a solution containing 0.5 mg. of benzpyrintum bromide in each ec. William R. Warner & Co., Inc., New York, New York

CIILOROPHYLL DERIVATIVES, WATER-SOLUBLE.—Chloresium (Rystan).—Water-soluble derivatives of chlorophyll consist chiefly of the copper complex of the sodium and potassium salts of saponified chlorophyll.

Actions and Uses -A mixture of the water-soluble derivatives of chlorophyll is employed as a bland, soothing, nonirritating preparation for topical application. A solution or ointment is used for deodorization and relief of itching in wounds, uleers, burns and dermatoses. It does not exert a significant disinfectant action and the mechanism of its deodorant effect on foul smelling chronic lesions is not elear. Such lesions, which are due primarily to chronic infection, may require surgical intervention and the use of auti-infective agents Water-soluble chlorophyll derivatives may aid in producing a clean granulating wound base and a condition suitable for the normal repair of tissues. Conclusive evidence is lacking that ehlorophyll derivatives stimulate granulation or epithelialization beyond the normal rate of healing, or that such derivatives are more effective than other agents for that purpose.

Dosage —A solution containing 0.2 per cent water-soluble chlorophyll derivatives is applied topically to the affected areas once, or several times daily, as desired

An ointment containing 0.5 per cent may be spread over affected areas and covered with fine-mesh gauze or other dressing. Applications are repeated at each change of dressing.

Physical Properties Water-soluble chlorophyll derivatives present as potassium and sodium salts occur as a blue-black glistening powder having an amme-like odor soluble in water, slightly soluble in alcohol nad chloroform, and very slightly soluble in ether A 1 per cent solution is dirk green and has u pH between 9 5 and 10 2

[For more detailed information regarding action and uses and for lests and standards, see J Am Med Assoc, 146–31 (1951)

Ointment Chloresium 0.5%: 28.35-, 113.4and 45.4-Gm. jars. An ointment containing 5 mg. of water-soluble chlorophyll derivatives in each Gm. of water-miscible base. Rystan Company, Inc., Mount Vernon, N. Y.

Solution Chloresium 0.2%: 59.11-, 236.5and 946 3-cc. bottles. A solution containing 2 mg. of water-soluble chlorophyll derivatives in each cc. (U. S. Patent 2,120,667 and 2,434,649. U. S. Trademark 408,787.) Rystan Company. Inc., Mount Vernon, N. Y.

CYCLAMATE SODIUM.—Suearyl Sodium (Abbott).—C<sub>6</sub>H<sub>17</sub>NNuO<sub>6</sub>S —M.W. 201.23.—Sodium cyclohexylsulfamate.—The structural formula for sodium cyclohexylsulfamate may be represented as follows:



Actions and Uses.—Cyclamate sodium is a synthetic, stable, non-nutritive sweetening agent used as a substitute for sugar by diabetics or other, who must restrict the intake of earbohydrate, and as a sweetening agent in oral forms of drugs. It is preferable to saccharin as a substitute for sugar because it is stable in hot solutions, and is free of bitter aftertaste in concentrations below 0.8 per cent. It is about 30 times as sweet as sugar. The sodium content of this preparation is a factor which must be considered in its use in patients with severe kidney damage or other conditions in which dictory sources of sodium are restricted. It is essentially nontoxie, but until further experience is gained with long-continued use, total daily intake should not exceed 1.5 Gm. It is slowly excreted largely unchanged in the urine.

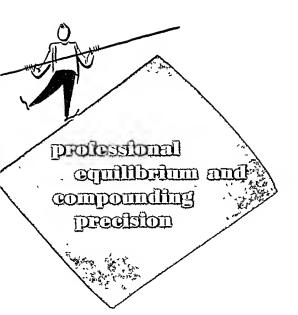
Dosage.—0.125 Gm. of cyclamate sodium is approximately equivalent in sweetening effect to one teaspoonful of sugar (sucrose). The agent is available in the form of tablets containing 0.125 Gm. of cyclamate sodium with small amounts of sodium bicarbonate and tartaric acid which impart effervescence when the mixture is ndded to beverages A solution containing 0.15 Gm. per ec. is also marketed for its greater convenience in sweetening cold liquids and in preparing special diets.

Physical Properties: Cyclamate sodium is n white, crystal line, praetically odorless powder with n very sweet taste. It is freely soluble in water and practically insoluble in alcohol. beazene, elitoroform and ether. The pH of n 10 per cent solution of cyclamate sodium is between 5 5 and 7.5

[For more detailed information regarding action and used and for tests and standards see J Ann Med Assoc, 145: 823 (1951)]

A solution Suearyl Sodium: 118.1-cc. bottles A solution containing 0.15 Gm. of cyclamate sodium in each ec. Preserved with 0.1 per cent benzoic acid and 0.05 per cent methylparaben. (U. S. Patent 2,275,125.) Abbott Laboratories, Inc., North Chicago, Ill.

Tablets Sucaryl Sodium: 0.12 Gm. (U. S. Patent 2,275,125.) Abbott Laboratories, Inc., North Chicago, Ill.



by Samuel W. Goldstein, Ph.D., Albert M. Mattocks, Ph.D., and Ursula Biermacher, M.S.

## **How to Measure Accurately**

Part IV of this special article from the laboratory of the AMERICAN PHARMACEUTICAL ASSOCIATION on compounding precision is devoted to the accurate measurement of liquids. Part III, on techniques of weighing, appeared in the June issue. Part V, on proper pharmaceutical calculation, will appear next month.

For many years pharmaceutical educators and practicing pharmacists have classified their students and their fellow practitioners as "careful" or "careless" technicians. That is still a valid classification, because these characteristics will determine the relative precision of measurement if similar equipment is used. Proper educational procedures and correctly supervised internship might at some future date eliminate the careless group of compounders. Then the problem would resolve itself to: How accurately can we measure?

#### CONTROLLABLE FACTORS

The fundamental and more readily controllable factors in precision studies are undoubtedly centered in the equipment we use. Some of these factors were discussed in the paper on balances. This paper is devoted to the measurement of liquids.

The common instrument of pharmaceutical volume measurement is the subdivided, glass measure or graduate. Every pharmacist knows that he should have a sufficient variety and number of graduates to allow a choice of any size at any time.

Some pharmacists have tried to force other pharmacists to obtain at least a minimum number and variety of graduates by sponsoring legislation making such equipment mandatory. However, even the most exacting of these laws does not limit all the graduates to the cylinder type, even though cylinders graduated in apothecaries units as well as those marked in metric units have been manufactured.

### TYPES OF GRADUATES

It may well be true that no clear and simple proof of the greater precision obtainable with graduated cylinders as compared with conical graduates has been presented to all pharmacists. Let us try to do that first. We will start with a good pharmacist who keeps his eyes and, if necessary, his glasses in good condition, and who consistently reads the lower meniscus with a deviation of 1 mm. or less from the marks on the graduates.

## CYLINDER VS. CONICAL GRADUATE

While the error in volume caused by a deviation of  $\pm 1$  mm. in reading the meniscus in a graduated cylinder remains constant along the height of the uniform column, the same deviation causes a progressively larger error in a conical graduate. Interested pharmacists have known or assumed that this is so. It is true because, if

(Continued on Page 422)

## Professional Equilibrium

••••• from page 421

the height of a column of liquid is constant at 1 mm., when the diameter of the column increases the surface area and the volume of the liquid increase also. Here are some data based upon the measured internal diameters of graduates. It is safe to assume that practically all good grade modern graduates comply with the National Bureau of Standards requirements for internal diameters at stated volumes. Our data are based upon actual measurements.

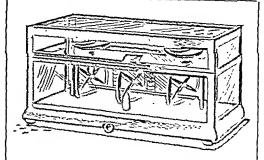
A deviation of  $\pm 1$  mm. in the meniscus reading will cause an error of approximately 0.5 cc. in the measured volume at any mark on the uniform 100-cc. cylinder graduate. At the 10-cc. mark on an acceptable blown or pressed glass 125-cc. (4-oz.) conical graduate, the internal diameter is greater than it is in the 100-cc. cylinder; and at the 100-cc. mark on the conical graduate a  $\pm 1$  mm. deviation from the mark will cause an error of 1.8 cc. The errors resulting from a  $\pm 1$ -mm. deviation at the ascending apothecary markings on the 4-oz. conical graduate would be approximately 1.0 cc. at 1 oz., 1.7 cc. at 2 oz., 1.7 cc. at 3 oz., and 1.9 cc. at 4 oz.

A more flared type of pressed glass 100-cc. conical graduate presented a larger internal diameter at the 100-cc. mark, and a deviation of 1 mm. from this mark would result in an error of 2.6 cc.

The above data are based upon the assumption that one can always measure a volume accurately enough to miss the mark by only ±1 mm. This assumption is obviously false. The same individual, exercising the same degree of care, will find it more difficult to adjust a volume of liquid to the 1-mm. allowance in a conical graduate than in a uniform cylinder. The curvature at the lower portion and the sloping sides of the conical graduate introduce factors of reflected and refracted light which interfere. The thick pressedglass graduate reflects lines from the inner surface unless the line is at eye level. The markings of double-scale graduates set up confusing lines. These factors would tend to increase the deviation from the mark on a conical graduate. When this is added to the fact that equal deviations from the marks result in greater errors in volume measurement in conical graduates, it should be plainly understood why graduates of the cylinder type are preferable.

## PRACTICAL DECISION

How accurately should we measure? Everyone will agree that our accuracy should be as good as



## Authors' Summary

Accurate equipment is essential for correct compounding.

A sufficient variety of graduates and pipettes or graduated droppers allow for proper choice according to the required volume.

Cylindrical graduates allow the most accurate volume readings.

Always read the lower meniscus at concave surfaces of liquids.

Use the graduate with a capacity equal to or just exceeding the volume to be measured.

Allow time for drainage of viscous liquids; or, when other liquids are used, mix the free-flowing liquids with the viscous residue before transferring.

Measure carefully. The best equipment is only as good as the compounder's personal precision.

practical considerations will allow. We should pour from a bottle into a proper graduate as nearly to the desired mark as possible. It would not be practical to add the final portion of the liquid with the aid of a dropper. However, if apothecary units smaller than the graduated divisions are required, such as minims, this portion of the measurement should be made using a standard minim graduate or a graduated minim dropper.

## SELECTION OF GRADUATE

Pharmacists have long been told, if not taught, that they should use the graduate with a capacity just exceeding the volume of liquid they desire to measure. This is still the best rule to follow. But let us look at some data relative to this problem. Assume that cylinder graduates are used

## PRACTICAL PHARMACY EDITION

and that readings average ±1 mm. from the volume markings. The measured internal diameter permits the calculation of the volume in 1 mm. of the cylinder  $(V = \pi r^2 h)$ . We would want our compounding errors to be augmented as little as possible by deviations in measurement. So let us say we want to measure within 2.5 per cent, or at most within 5 per cent of a given volume. A good 10-cc. cylinder with an internal diameter of 1.18 cm. would hold 0.109 cc. in 1 mm. of the column. If this volume represents the 2.5 per cent deviation we would allow, then the smallest volume we should measure in the 10-cc. cylinder is 4.5 cc. If we are willing to accept a deviation of 5 per cent, then 2.2 cc. should be the smallest volume measured in the 10-cc. cylinder.

The important fact revealed here is that either the lower 2.2 cc. (22%) or the lower 4.5 cc. (45%) of the 10-cc. graduate should not be used for measuring. It might be wise to eliminate the lower volume markings. The portions of cylinders of different volumes that should not be used are indicated in Table 1. For accurate measurement of volumes less than 1.5 cc. a graduated pipette or a graduated dropper could be used.

## EFFECT OF LIQUID AND CONTAINER

It is most difficult to measure accurately when pouring from a completely filled bottle because of the uneven flow of the liquid. If the graduate being used is clean, the volume can be adjusted by returning any excess to the bottle. After the first portion of the liquid is removed, the shape of the bottle does not influence the ease of pouring to any appreciable extent unless the neck is extremely narrow.

Viscous liquids pour slowly, but their accurate measurement is not difficult. Experiments showed that when glycerin is poured into a graduate without letting the liquid run down the inside surface, the precision of measurement can be very high. Naturally, the chance of hitting the inner surface is greater with smaller graduates. The increase in possible deviation is then caused

by the slow movement of the viscous liquid to the desired mark.

#### DRAINAGE TIME

Viscous liquids introduce another factor: that of drainage time. Graduates are calibrated to contain indicated volumes within specified limits. Aqueous, alcoholic, and hydroalcoholic liquids can be drained from a graduate in one-half minute so completely that the delivered and contained volumes are fairly close. When 25 cc. of glycerin were used with the same cleaned and dried cylinders, the received volume measured 23.7 cc. after the same time period.

The viscosity factor might be altered when another liquid is to be mixed with the glycerin by measuring and mixing both liquids in a glass-stoppered cylinder.

### THE HUMAN FACTOR

The human factor of carefulness is of paramount importance in every pharmaceutical operation in which precision is essential. The basic necessities for accurate measurement of liquids requires: first, accurate technical equipment; second, careful manipulation; third, good vision and a steady hand. In order to improve compounding precision we must realize the need for and the availability of reliable technical equipment. We should also realize that our work must reflect our professional abilities if we are to achieve professional recognition.

It is important that Pharmacy Schools should equip their compounding laboratories with accurate measuring apparatus, and the proper use of this apparatus should be explained and impressed upon all pharmacy students. The analysis of every assayable preparation compounded by pharmacy students would make the students precision-conscious. We must do all that is possible to awaken in our present and future students the desire to do precise compounding if our past and present records are to be improved in the future.

Table I. Useful Parts of Cylinder Graduates. Based upon Deviation of  $\pm 1$  Mm. from Mark and Allowable Errors of 2.5% and 5%

Size of Cylinder, Cc.	Internal Diameter, Cm.	Deviation, Cc.	Min, Vol. Giving 2.5% Error, Cc.	Part of Cylinder not Useful, %	Min. Vol. giving 5% Error, Cc.	Part of Cylinder not Useful,
5 10 25 50 100 250 500	0.98 1.18 1.94 2.24 2.58 3.40 4.60	0.075 0.109 0.296 0.394 0.522 0.908 1.660	3.00 4.36 11.84 15.76 20.88 36.32 42.64	60 44 48 32 22 16 9	1.50 2.18 5.92 7.88 10.44 18.16 21.32	30 22 24 16 11 8

Independent research, plus clinical tests by the armed services, is resulting in the perfection of new drugs for this important condition.

## By Donald B. Crowl

A SEARCH has been made for a cure or preventive of motion sickness ever since man first tied some logs together, pushed them into the water, climbed aboard, and became seasick. Through the centuries, various substances were prescribed to counteract the churning stomach, the debilitating nausea and vomiting, and greenish-hued complexion of the unhappy way-farer by water.

## **OLD-TIME TECHNIQUES**

The medical literature since 1800 has been replete with recommendations which, if added together, would include nearly every drug in the pharmacopeia, as well as other concoctions not found anywhere. Creosote was highly recommended, except that its nauseous taste could not be tolerated.

An English physician experimented with individual prescriptions of chloroform, creosote, carbonate of soda, brandy, and a mixture of nitrohydrochloric acid and sulfate of magnesia. He reported, however, that "a sound purge of calomel and colocynth or croton oil on sugar," taken just before the sea voyage was begun, was probably the best preventive.<sup>2</sup>

One traveler stated that a teaspoonful of salt in a wineglass half full of vinegar had wrought a complete cure.<sup>3</sup> One notable recommendation carried anonymously in the *British Medical Journal* in 1862 advocated "soup made of horseradish and rice, seasoned with red herrings and sardines"—small amounts of champagne to be taken in conjunction.<sup>4</sup>

## MECHANISM OF MOTION SICKNESS

The three semicircular canals in the inner ear compose the balance organ of the body. This, called the vestibular organ, allows you to stand, sit, stoop, walk, or perform any of the body movements without falling. These canals are filled with fluid which is in motion according to the position or movement of the body.

At the place where these three canals meet is a sensitive area called the utriculus. The fluid in the semicircular canals moves across this area and, when the body is subjected to a constant motion, such as rocking in a boat or swaying in a car, nervous impulses are originated in the utriculus. It is not definitely known whether it is the pattern the fluid makes in passing over the utriculus or whether it is the increased motion which sets up these nervous impulses.

In either event, nervous impulses travel from the utriculus to the vomiting center in the midbrain and cause the nausea and accompanying symptoms of motion sickness.

It is believed that the drugs effective against motion sickness either depress the vomiting center or block the impulses themselves. All drugs found to be of value against motion sickness have the common ability to affect the stimulation of the parasympathetic system. For this reason, hyoscine and other atropine-like drugs are probably effective. The antihistaminic



drugs that are effective have similar atropinelike action.

## GROWTH OF TRANSPORTATION

The advent of the railroad brought with it car sickness, and then the automobile and airplane added their victims of motion sickness to the list of those to whom travel meant misery and illness

## PRACTICAL PHARMACY EDITION

During World War II, when large bodies of troops were being transported by sea and air, control of motion sickness became a strategic problem of first importance.

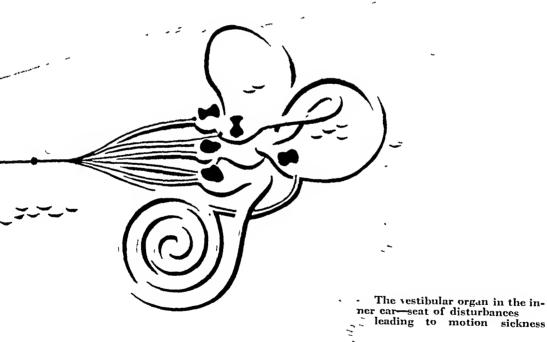
The Armed Forces poured thousands of dollars into research projects in hurried but thorough efforts to discover a drug that would allay the brief but totally disabling illness. Hyoscine bromide was the most effective drug found, but owing to its side-effects of blurred vision, dryness of the mouth, and hallucinations, it was never given routinely.

It is slightly ironic that when an effective drug was found it was discovered by accident. At the same time, the discovery is a tribute to scientific curiosity, a mark of the true scientist.<sup>5</sup>

In 1947, Dr. Leslie N. Gay of Johns Hopkins University Hospital, in Baltimore, Md., was given a new antihistaminic, dimenhydrinate

#### **OPERATION SEASICKNESS**

An opportunity for study presented itself when Dr. Gay made a trip to Europe in 1948 on the S.S. America. With the cooperation of the ship's physician and nursing staff, seasick passengers were given the drug, with almost 100 per cent results. Dr. Gay then prepared a brief report which he submitted to the Army Chief of Staff, who, through the Surgeon General's Office, enthusiastically endorsed Operation Seasickness, a research project to test dimenhydrinate during a crossing of the North Atlantic in November of 1948, the time of year when climatic conditions cause the roughest water anywhere in the world. The 13,000-ton Army transport General Ballou, a ship which had originally been built as a freighter for use in the relatively calm waters of the South Pacific, was chosen to make the cross-



(Dramamine), to use in treatment of hay fever and urticaria. One of Dr. Gay's patients was a pregnant woman who, in addition to the nausea of pregnancy, suffered acutely from car sickness. This patient noticed that when she took the drug her nausea disappeared, and for the first time in her life she was able to ride a street car without becoming ill. Dr. Gay found that he could control the car sickness of his patient at will.

ing from New York to Bremerhaven, Germany.

The Ballon, constructed high and narrow, rode
the waves like a cork, reacting violently to the

(Continued on next page)

Motion Sickness

••••••••••• from page 425

rough motion of the water. Four of the troop compartments were below water level, and into these compartments were placed 485 soldiers, divided by Dr. Gay and his associate, Dr. Paul E. Carliner, into four groups.

Groups I and II were chosen for the prophylaxis trial. When the ship left the harbor, the 134 men in Group I were given orally 100 mg. of dimenhydrinate. The same dose was repeated six hours later at bedtime. For two days after the ship put to sea, 100 mg. of the drug was given to each man before each meal and upon retiring.

The 123 men in Group II were given a placebo of lactose administered on the same schedule as carried out in Group I.

In Groups III and IV the drug was withheld until severe symptoms had developed.

Ninety men in Group IV were given the lactose placebos after seasickness had developed.

#### FINDINGS OF THE TEST

In Group I, the prophylactic dose of 400 mg. daily of dimenhydrinate was maintained for 48 hours. No seasickness developed, and only two men complained of dizziness. Administration was stopped for 18 hours, and during that period 41 men (30.5 per cent) became seasick. menhydrinate was prescribed in doses of 50 to 100 mg. before each meal and on retiring. After 24 hours, one of the 41 men still complained of dizziness, but the rest recovered their normal health within 1/2 to 1 hour after the first dose. The drug was given for another two days, then discontinued. Within 24 hours all 41 men again became ill. The drug was then given until the voyage had ended, with all but one man being completely relieved within an hour.

In contrast to Group I, of the 123 men in Group II who received the placebo, 35 (28.4 per cent) reported that seasickness developed within 12 hours after departure. Dimenhydrinate was not given for two days, during which time the illness became severe. When given at the dosage level of 400 mg. a day, complete relief was obtained within one hour after the first 100 mg. dose in all but one case.

In Group III, treatment was withheld until symptoms became severe. Within 12 hours after departure, 15 of 129 men (11.6 per cent) reported to sick bay. Dimenhydrinate was given on a dosage schedule of 100 mg. every five hours and

## Author's Summary

Motion sickness has been a condition that has plagued people for thousands of years, but no adequate remedy had been found until recently when dimenhydrinate's value was discovered by accident.

The value of dimenhydrinate was shown to be 96 per cent effective in tests made aboard an Army transport.

Later tests showed diphenlydramine hydrochloride to be equally effective.

Hyoseine hydrobromide and hyoseine aminoxide have been found successful against airsiekness, but a mixture of hyoseine hydrobromide and diphenhydramine hydrochloride is most effective.

No one of the drugs seems to be the ideal answer to the problem of airsickness, but research is now seeking a combination of these which will relieve the condition without bad side reactions.

upon retiring. Fourteen patients obtained immediate relief.

Of the 99 men in Group IV, 33 became seasick within 12 hours. These men were given a placeho every five hours and upon retiring. Nineteen men whose complaints had been nausea and dizziness recovered within 12 hours, but the other 14 became progressively worse until dimenhydrinate was given on the same schedule as in previous groups. All were relieved of their symptoms within a half hour after the first 100-mg. dose.

#### OTHER TESTS AND DRUGS

In other tests, diphenhydramine hydrochloride (Benadryl) was found to be as effective in the prevention of motion sickness as dimenhydrinate (Dramamine). Comparison of the structural formulas shows the similarity in composition of the drugs.

$$\begin{array}{c|c} CH_3 & C_6H_5 \\ \hline CH_3N & CI \cdot (CH_3)_2 & CH_2CH_2CH_2 \\ \hline C_6H_5 & C_6H_5 \\ \hline \end{array}$$

Dimenhydrinate (Dramamine)

Diphenhydramine hydrochloride (Benadryl)

Researchers at the Air Force School of Aviation Medicine tested dimenhydrinate for its effectiveness in airsickness. Although the results were less spectacular than in Operation Seasickness, they nevertheless revealed that the drug decreased the incidence of airsickness.6

Experiments were conducted in May, 1950, aboard the Army transport General Maurice Rose, a 16,000-ton ship sailing between New York and Bremerhaven, Germany.7 Approximately 1000 troops acted as volunteer subjects on the roundtrip voyage, different groups being used on each leg of the journey.

The experiments were conducted to test several drugs which had been proposed as useful in prevention of motion sickness and to determine if the antihistaminic properties in some of the drugs made them valuable as motion sickness preven-The researchers reported that the preventive and therapeutic actions in motion sickness are not related to antihistaminic qualities.

It was found that dimenhydrinate and diphenhydramine hydrochloride, although recommended in cases of seasickness, were not considered suitable for use by crew members of aircraft owing to their sleep-inducing qualities. Hyoscine. which has been used in all types of motion sickness for many years, produces less drowsiness than the antihistaminic drugs, but its undesirable side reactions of dryness of the mouth, blurring of vision, and occasional hallucinations make it unpleasant to take.

Trihexyphenidyl (Artane), a drug similar in action to hyoscine but not related chemically, was tested and found to have some use as a seasickness preventive but also possessed the un-· desirable side reactions of hyoscine. Trihevyphenidyl has been used with moderate success in the treatment of cerebral palsy.

Hyoscinc aminoxide (Scopodex), a drug closely related to hyoscine but less toxic and causing less dryness of the mouth, was tested on seventynine air passengers in simulated turbulent flight.8 Only seventeen (21.5 per cent) suffered any degree of nausea.

Although none of the five drugs is singly the answer to the airsickness problem, the researchers pointed out that there may be a combination among these drugs which retains the protective qualities while eliminating the undesirable reactions.

In later tests, a mixture of 0.65 mg, of hyoscine hydrobromide and 50 mg. of diphenhydramine hydrochloride was given to a group of subjects one hour before flight time. Another group was given hyoscine hydrobromide alone in doses of 0.65 mg., while others received dimenhydrinate or diphenhydramine hydrochloride.9

The superiority of the hyoscine hydrobromidediphenhydramine hydrochloride was clearly demonstrated. Only 10.3 per cent of the subjects in this group became airsick, compared with 19.3 per cent with hyoscine hydrobromide alone. and approximately 30 per cent with dimenhydrinate or diphenhydramine hydrochloride.

## RECOMMENDED DOSAGE

The advised dosage of dimenhydrinate has been determined to be 50 mg every four to six hours. 10 For seasickness, the first dose should be taken 30 minutes before the boat leaves the harbor. For airsickness, it should be taken 10 minutes before the plane takes off, and for car sickness, 10 minutes before the car or train moves.

Diphenhydramine hydrochloride should be given in doses of 25 mg., on the same time schedule as for dimenhydrinate.7

Hyoscine aminoxide is administered in doses of 2.0 mg. on the time schedule given for dimenhydrinate and diphenhydramine hydrochloride

Sufficient data have not yet been accumulated to define a dosage schedule for the diphenhydramine hydrochloride-hyoscine hydrobromide mixture, but it is safe to assume that the amount given in foregoing paragraphs (25 mg. diphenhydramine hydrochloride and 0.65 mg. of hyoscine hydrobromide) may be administered.

## REFERENCES

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## PRESIDENT APPOINTS FIVE-MAN COMMISSION TO STUDY U. M. T.

President Truman has signed the bill to extend selective service until July 1, 1955, lower the draft age to 181/2 and set up a system of universal military training for all young men for the first time in the nation's history. The universal training feature will go into effect at some unspecified time in the future.

Immediately after he had signed the bill, the President sent to the Senate the nominations of five men, later confirmed, to compose the National Security Training Commission, which will have general supervision over the universal military training program. Under the terms of the new law, this was the first step required toward putting it into effect.

Members of the commission are: James W. Wadsworth, former Senator and Representative from New York, chairman; William L. Clayton, former under secretary of State; Dr. Karl T. Compton, chairman of the eorporation of the Massachusetts Institute of Teehnology and ehairman of the commission that recommended universal military training to President Truman in 1947; Lieut. Gen. Raymond S. MeLain, comptroller of the Army; and Admiral Thomas C. Kinkaid, retired.

The new law requires that the commission "shall, subject to the direction of the President, exercise general supervision over the training of the National Security Corps, which training shall be basic military training." It requires three of the members to be civilians, one of whom will be chairman, and permits the other two members to be active or retired officers.

## MILITARY MEDICINE ASSUMES NEW IMPORTANCE

The emergence of military medicine as a matter of prime coneern to the American medical and related professions became clearly evident at the 100th annual convention of the American Medical Association held recently in Atlantic City, N. J. From the presentations and reports on such subjects as the treatment of burns, air evacuation, frost bites, radiation injuries and field orthopedie problems, it was clearly seen that American troops today are receiving a quality of medical care superior to any ever before given to a military force.

Almost as important is the fact that this care

is being given with a minimum of drain upon our eivilian medical economy.

In World War II, with our fighting forces reaching a peak of 12,000,000 men in 1945, the military services required more than 60,000 physicians, averaging from 5.6 to 5.2 physicians to 1000 troops. In the last three years, however, the Armed Forces have constantly reduced their ratios and are operating at fewer than four physicians to 1000 men, a reduction of more than one-third.

Dr. Richard L. Meiling, who on July 1 concluded a two-year term as Chairman of the Armed Forees Medical Policy Council, eited joint utilization of service hospitals as an example of how unification has resulted in tremendous savings of both scarce medical man power and materiél, In November, 1950, more than 7000 military patients were in service hospitals in the United States other than those of their own parent service.

## WORLD SHORTAGE OF INSECTICIDES

The World Health Organization has asked the United Nations to set up a special body to investigate the growing world shortage of elilorine-based insecticides, including DDT used in proteeting millions of persons against malaria.

In a background paper reviewing action taken to date, WHO pointed out that the availability of insecticides has been sharply affected by the shortage of essential raw materials (ehlorine, benzene and sulfuric acid) resulting from defense programs of the major producing countries. The survey showed that a total of 23,688,000 pounds of DDT will be needed for the last half of 1951 and the full year 1952.

The most serious effect of any major interruption of DDT supplies to countries conducting malaria-eontrol programs will be to expose the populations recently protected to serious risk of malaria epidemics because the people will have lost the degree of immunity which they had previously developed when malaria was always

At the time the document was prepared, production of insecticides in the United States was increasing in spite of the many difficulties in regard to raw material supplies, transport, and the provision of containers. However, the availability of supplies for export is uncertain, partly because of the variation in internal demand.

## SECURITY

## CHEMICALS CLASSIFIED ACCORDING TO AVAILABILITY

A list of chemicals and drugs classified as "In Very Short Supply" (Group I), "In Tight Supply" (Group II-B), and "In Fair Supply" (Group III-B) has been issued by the National Production Authority as a guide to the armed services, government agencies, and industry.

In making this compilation, the NPA assumed that the mobilization program will be continued as currently planned. In publishing the list, no statement was made by NPA as to when the situation might be eased.

The chemicals and drugs in the first two groups which are of especial interest to pharmacy follow.

## Group I-In Very Short Supply

Albumin, serum
Aureomycin
Bismuth compounds
Blood plasma
Boric acid
Citric acid
Copper sulfate

Hydrogen peroxide
Litharge
Nicotinic acid
Pencillin
Phenol
Pine oils
Pine tar

Cortisone Potassium perchlorate

Digitalis Resorcinol
Formaldchyde Sulfadiazine
Glycerin Sulfathiazole
Hexylresorcinol Sulfur

## Group II-B-In Tight Supply

**Fumigants** 

Acetaldehyde
Aminophyllin
Ammonium chemicals
(except ammonium
persulfate)
Antibiotics
(except those in

Group I)
Antimony trichloride
Barium chemicals

Barium chemicals Benzene hexaehloride (BHC)

Benzoic acid Borax Caleium eliemicals

(except calcium carbide and calcium arse-

nate)
Caustic potash
Chloral

Copper chemicals (except those in Group I)

D. D. T.
Detergents, synthetic

Ferrie salts

Hydrochloric acid Isopropyl alcohol Mercury chemicals Nicotin amide Nikethamine Nitrie acid Nitrous oxide Orthophosphoric acid Oxalic acid Para dichloro benzene Parathion Phosphorus chemicals Potassium chemicals (except those in Group I) Riboflavin Sodium chemicals

(except sodium chlorate)
Theophylline

Theophylline
Typhus vaccine
Vitamin A
Vitamin B-12
Zinc oxide



FROM THE SECRETARY'S DIARY FOR JUNE

Today a luncheon meeting of the Steering Committee of the Committee on Status of Pharmaeists in Government Service with Chairman Einbeck presiding and receiving interesting data from the guests of the committee, who included Colonel O. F. Goriup of the Army Medical Service Corps, Commander Taylor of the Navy, and Lt. Colonel Larnee of the Air Force. At night on the way to Buffalo.

In the early morning to the Statler in Buffalo, which will be headquarters for the 1951 Convention. Here came Mearl Pritchard and Leroy Keagle, chairman and secretary, respectively, of the Convention Committee, to discuss entertainment details and other problems. Working late into the evening with the hotel manager arranging for meeting room assignments and finally on the Lehigh Valley overnight to Philadelphia.

To the Philadelphia Convention Hall viewing exhibits at the annual convention of the Catholic Hospital Association and spending some time at the Hospital Pharmacy Institute conducted by the C. H. A. Glad to see and chat with Father Crimmins and Dean Jarrett of Creighton University and Prof. Ireland of Loyola in New Orleans. More than fifty sisters who practice pharmacy in eatholic hospitals and a sprinkling of hospital pharmacists from other institutions were in attendance, with Oliver J. Steppig of St. Louis presiding over most of the sessions. Like most hospital pharmacists, this group shows much active interest in developing their specialty.

Today attending a special conference called by the American Hospital Association at the Carlton Hotel to discuss civilian drug and medical supply requirements, and the problem of their allocation. The participation of high government military, as well as civilian officials and the general spirit of the conference, assures a satisfactory relationship which will go far in the development of policies fair to all. With such able pharmacists as Howard Pringle, Colonel Nelson, Tom Foster, J. S. Mordell, and others in important government positions dealing with drugs and medical supplies in the emergency, we are bound to have

intelligent administration in this important field. Now off to Charleston, S. C., for the 75th anniversary of the South Carolina Pharmaceutical Association.

Delighted to find Vice-Chairman Tom 7th Wyatt of the A. PH. A. House of Delegates and Mrs. Wyatt at the station to meet us in Charleston this morning, and spent a pleasant day in the company of the members of the S. C. Pharmaceutical Association, addressing their morning session and later viewing the pharmacy department of the Medical College of South Carolina, in company of Prof. J. Hampton Hoeh. Also a pleasant visit with Past President Charles II. Evans, and luncheons with hard-working Secretary Jim Plaxeo. Still later viewing some of the many places of interest in this quaint city of the old south, in company of the Wyatts and Bert Mull, with Mrs. Wyatt acting as guide. Off on the night train to Washington.

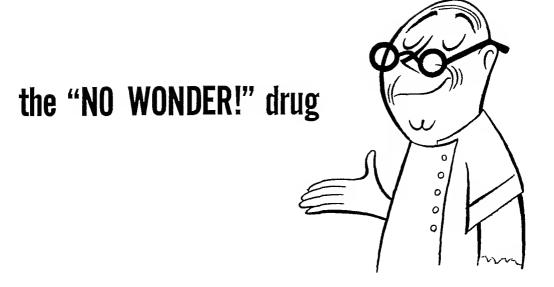
Back in Washington in the early morning and glad to he able to work in a staff meeting hefore the week's end. Here we reviewed the status of various Convention plans, National Pharmaey Week, and progress in all departmental activities.

After a busy week end eatehing up with accumulated business, off to the A. M. A. Convention in Atlantic City where the splendor of the commercial pharmaceutical exhibits and the ingenuity and audio-visual techniques employed in depicting progress in the sciences related and contributory to the modern practice of medicine, staggered the imagination.

Arriving early this morning at Saranae Lake in New York and the contrast between seashore and mountain resorts is interesting to behold. A large audience listened intently to our discussion of the problems of the day and especially to the status of the prescription renewal problem. A fine opportunity to renew friendships with many up and down state New Yorkers. Back to Washington via New York at night and able to get in a good week end of reading, writing and discussion.

Conferring with Selected Service authorities today and laying the groundwork for what we hope will be a satisfactory policy of deferment of draft-eligible pharmacists and pharmacy students.

An early morning automobile trip to Ocean City, Maryland, to uddress the Maryland Pharmaceutical Association on current affairs and especially on FDA interpretation of the prescription reference in the Food, Drug and Cosmetic Act. It is always a pleasure to meet with these good neighbors and glad to note that Secretary Mel Strasburger is well on the road to recovery from his recent illness.



In an age of miracle drugs, constipation correctives arouse little excitement ... yet Cellothyl has wrought a minor miracle of its own.

> In the constipation field, where nothing new has been seen in a decade, the development of Cellothyl put a pair of new, profitable products on pharmacy shelves. And no wonder!

NO WONDER those who use Cellothyl repeat their purchases: many are for the first time in years enjoying comfortable regularity. Not only has Cellothyl corrected their obstinate constipation, but its regular use keeps them constipation-free.

NO WONDER physicians specify Cellothyl above all other brands of methylcellulose. Its development aroused new interest in constipation for it gave them a new therapeutic weapon-not a "quick cure," but a physiological corrective which when properly used will overcome even years of constipation.

NO WONDER pharmacists prefer Cellothyl. They know it is here to stay-the leader in an expanding field which it will continue to lead. A growing bibliography, with clinical reports referring specifically to "Cellothyl," assures more sales and repeat sales, raising Cellothyl to the status of the new "old reliable."

## CELLOTHYL Tablets (0.5 Gram)

size	yeer cost each	fair trade minimum
50's	\$ .60	\$ .89
100's	1.00	1.49
500's	4.00	5.95
5000's	32.00	48.00

## CELLOTHYL Granules (for infants and children)

25 Gram		.79
100 Gram	1.67	2.47



CHILCOTT Laboratories DIVISION OF The Maltine Company MORRIS PLAINS, NEW JERSEY

# U.S. FOOD AND DRUG ADMINISTRATION

COURT JUDGMENTS-MAY, 1951

## ADULTERATED AND MISBRANDED DRUGS AND DEVICES

Locality	Product	Violation and Sentence
Dayton, Ohio	"Fountain of Youth" (a drug product)	Misbranded—labeling falsely recommended product for treatment of cancer, polio, spinal meningitis, and diabetes. Sentence: 1 defendant fined \$1000: 1 defendant fined \$500; both defendants given 1 year suspended sentence and placed on probation. Firm fined \$1000, suspended
Minneapolis, Minn.	Treet L-C; Treet Vape Spray; Treet Coryza Inhibitor; Treet Powders Nico-Phen	Misbranded—literature bore false and misleading claims for poultry use. Sentence: 1 defendant fined \$500, placed on probation for 3 years
Jamaica, N. Y	Epinephrine Bitartrate tablets	Adulterated and misbranded—deficient in declared amounts of epinephrine or epinephrine bitartrate. Sentence: 1 defendant fined \$50; firm fined \$2
Lynn, Mass	Headnehe powders	Contained more acetanilid than declared on label. Sentence: 1 defendant and firm fined \$25 each

## OVER-THE-COUNTER SALES-PRESCRIPTION DRUGS

Locality	Product	Violation and Sentence
Birmingham, Ala.	Barbiturates	Sold without physicians' prescriptions. Sentence: 1 defendant fined \$500; 1 defendant fined \$250
Ashdown, Ark.	Thyroid; Amplietamines; Barbiturates	Sold without physicians' prescriptions. Sentence Suspended for 1 defendant and placed on probation for 1 year
Ashdown, Ark.	Thyroid; Stilbestrol; Amphetamines; Barbiturates	Sold without physicians' prescriptions. Sentence. Suspended for 1 defendant and placed on probition for 1 year
Lockesburg, Ark	Thyroid; Barbiturates	Sold without physicians' prescriptions. Sentence: Suspended for 1 defendant and placed on proba- tion for 1 year
Nashville, Ark.	Barbiturates; Amplictamines; Thyroid	Sold without physicians' prescriptions. Sentence: Suspended for 1 defendant and placed on proba- tion for 1 year
Lebanon, Mo.	Amplietamines; Barbiturates; Sulfonamides	Sold without physicians' prescriptions. Sentence: Firm fined \$135 and court costs
Columbus, Ohio	Amphetamines; Sulfonamides	Sold without physicians' prescriptions. Sentence: 3 defendants fined \$300, \$150, and \$75, re- spectively
Columbus, Ohio	Amphetamines; Sulfonamides; Thyroid	Sold without physicians' prescriptions. Sentence: Firm fined \$300; 1 defendant fined \$225; 1 defendant fined \$150



mainstay in the active treatment of threatened abortion, Proluton, pure progesterone

for intramuscular injection, should be administered in adequate dosage, promptly and frequently until symptoms subside.

Thereafter, a smooth course is favored by continuing

to provide action of the corpus luteum hormone with PRANONE, orally effective anhydrohydroxyprogesterone.

Schering corporation
BLOOMFIELD, NEW JERSEY

# U. S. FOOD AND DRUG ADMINISTRATION

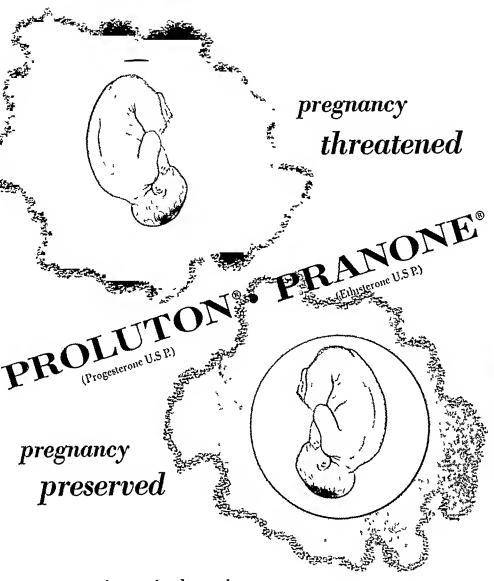
COURT JUDGMENTS-MAY, 1951

### ADULTERATED AND MISBRANDED DRUGS AND DEVICES

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Minneapolis, Minn.	Treet L-C; Treet Vape Spray; Treet Coryza Inhibitor; Treet Powders Nico-Phen	Misbranded—literature bore false and misleading claims for poultry use. Sentence: 1 defendant fined \$500, placed on probation for 3 years
Jamaica, V Y	Epineplirine Bitartrate tablets	Adulterated and misbranded—deficient in declared amounts of epinephrine or epinephrine biturtrate. Sentence: 1 defendant fined \$50; firm fined \$2
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Lebanon, Mo.	Amphetamines; Barbitarates; Sulfonamides	Sold without physicians' prescriptions. Sentence: Firm fined \$135 and court costs
Columbus, Ohio	Amphetamines; Sulfonamides	Sold without physicians' prescriptions. Sentence: 3 defendants fined \$300, \$150, and \$75, respectively
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Schering CORPORATION BLOOMFIELD, NEW JERSEY

## Hospital Pharmacists Hold Two Institutes

Fostered by A. PH. A. and American Hospital Association in New Orleans and Catholic Hospital Association in Philadelphia, these Institutes attracted pharmacists from all sections of the country.

resenting almost every state, Canada and Puerto Rico attended the 1951 Institutes on Hospital Pharmacy. Two meetings of this type, designed as refresher courses especially for the practicing hospital pharmacists, were held this year—the American Hospital Association Institute in New Orleans and the Catholic Hospital Association Institute in Philadelphia. The A. Ph. A. and the A. S. H. P. cooperated in making both of these meetings possible. In addition to the sponsoring organizations, the local hospital pharmacists in both New Orleans and Philadelphia, contributed much to the success of the Institutes.

These meetings offer hospital pharmacists from institutions throughout the nation an opportunity to secure current information on new drugs, pharmaccutical procedures and formulas and plans for better organization and administration of the department. With a faculty representing eaders in the hospital field, education, teaching institutions, small hospitals and government agencies, as well as the various phases of pharmacy practice, an invaluable contribution was made toward providing better pharmacy service in hospitals. Not only do meetings of this type benefit individuals attending the Institutes and the hospitals represented, but they also give those returning to their local hospital groups and fellow hospital pharmacists much to offer in the way of new trends in pharmacy practice in institutions.

## A. H. A. Institute-New Orleans

Meeting for a five-day session at Hotel Roosevelt in New Orleans during the week of June 11 more than 100 hospital pharmacists attended the A. H. A. Institute.

Highlights of the program included talks on Organization and Administration, the opening address being given by Father Shields, president of Loyola University, who urged hospital pharmacists to have a sound plan of organization. Other discussions on this subject covering the steps in formulation of policy in operating the

various activities in the pharmacy department included manufacturing, the pharmacy and therapeutics committee, pricing, purchasing and departmental relationships.

A full day was devoted to current trends in therapy by outstanding physicians from the New Orleans Area. Discussions covered electrolytic ion replacement therapy, drugs used in the treatment of tuberculosis, developments in the treatment of parasitic diseases, endocrine drugs, preparations used in the treatment of epilepsy and newer autonomic drugs as well as a general presentation on current investigational drugs.

For those who are building new pharmacies or looking forward to remodeling present facilities, practical suggestions were offered for planning and equipping the hospital pharmacy. Following the suggested plans made available by the Public Health Service, a pharmacy specialist of the Hospital Facilities Division, presented detailed information covering scope, capacity, convenience, traffic flow, power requirements, styling, cost, location, and selection and arrangement of equipment.

Timely to those attending the Institute was a talk by Mr. Thomas Foster, pharmacist director in the Division of Civilian Health Requirements, Office of the Surgeon General, Public Health Service. He brought hospital pharmacists up to date on the functions of the Division in providing materials needed in hospital construction and domestic distribution of supplies and equipment in the health field. He further assured pharmacists that his Division is working with industry and consultants in the hospital field toward making provisions for all items in short supply.

Other features of the five-day session included a tour of La Pharmacie Française de Louis Dufilho; a dinner meeting at the famous Arnaud's Restaurant along with an evening of entertainment; and a special luncheon on Friday with Dr. R. L. Pullen speaking on "The Changing Concept of Medical Practice." Concluding the meeting with a dinner on Friday evening, Dr. John C. MacKenzie, representing the A. H. A., awarded certificates to the institute members.

## C. H. A. Institute-Philadelphia

Meeting in conjunction with the 36th annual convention of the Catholic Hospital Association, approximately 70 pharmacists attended the Third Institute for Hospital Pharmacists conducted under the auspices of the C. H. A. and held at Convention Hall in Philadelphia, May 31 to June 4. The program, arranged by the Association's Committee on Hospital Pharmacy Practice, offered a wealth of information for providing members of the Institute with current data on new trends in therapy, the legal aspects of hospital pharmacy practice, formulas and manufacturing procedures and methods for handling records and reports in the hospital pharmacy. Members of the Committee responsible for planning the program were: Sister Mary Bernardine, S.C., Chairman, Holy Family Hospital, Brooklyn, N. Y.: Sister Mary Berenice, S.S.M., St. Mary's Hospital, St. Louis, Mo.; Sister Mary Blanche, O.S.F., Sacred Heart Sanitarium, Milwaukee, Wis.: Sister Mary Carl, O.P., St. Dominic Hospital, Jackson, Miss.; and Sister Marv Ancilla, S.S.J., St. Joseph's Hospital, Hamilton, Ontario, Canada.

Those attending the Philadelphia Institute represented chiefly Catholic hospitals along with a few lay pharmacists. A business session for the Sister Pharmacists held during the Institute, offered an opportunity to make plans and recommendations for the C. H. A.'s Committee on Hospital Pharmacy Practice.

Distinguished guests present at the opening meeting were Father John J. Flanagan, Executive Director of the Catholic Hospital Association, Mr. M. R. Kneifl, Executive Secretary of the C. H. A.; Dr. Robert P. Fischelis, secretary of the A. Ph. A.; I. Thomas Reamer, president of the A. S. H. P.; Mr. Quintus Hoch, president of the Philadelphia Hospital Pharmacists' Association; Dean Joseph Sprowls, Temple University College of Pharmacy; and Dean L. F. Tice, Philadelphia College of Pharmacy.

In addition to the regular program, arrangements for special events included a tour of Philadelphia hospitals and the final luncheon on Tuesday, during which time Msgr. John R. Mulroy, President of the C. H. A., awarded certificates to those who had attended the Institute sessions.

The success of these meetings as well as previous ones points to the growing importance of hospital pharmacy as a specialty in the medical care field, as well as the willingness and interest on the part of those attending, the sponsoring organizations and the faculty in making this type meeting possible.

# PRESIDENT TRUMAN LAYS CLINICAL CENTER CORNERSTONE

Cornerstone-laying ceremonies for the Public Health Service's new Clinical Center for medical research were held June 22 at Bethesda, Maryland, with President Truman delivering the principal address.

Plans for the \$40,000,000 Clinical Center were originally formulated in 1945, with the purpose of expediting the fight against many of the still-unconquered infectious diseases. Authorized by Congress in 1947, construction of the 500-bed clinical center was begun in autumn of 1948. It is expected that the first patients will be admitted in January, 1953.

According to Oscar R. Ewing, Federal Security Administrator, the Center will be one of the largest and best-equipped research hospitals in the country.

"A great medical research tradition that began in the Public Health Service in the 1880's will be furthered immeasurably by this new national institution," Mr. Ewing said. "It will be a symbol of our basic national aspiration—the peaceful pursuit of health and happiness in a free society."

President Truman, speaking at the cornerstone-laying ceremonies, emphasized his belief in the importance of medical progress, the resultant good health, and the work done to further its cause "through the combined efforts of private individuals and institutions and local, State, and Federal agencies." He also expressed his pride in being able to participate in the cornerstonelaying ceremonies.

As an example of the advances medical science has made in recent years, President Truman spoke of the remarkable progress made in extending the average life expectancy 18 years in the brief span of a half-century. "The average American baby born this year can expect to live 67 years—until the year 2018," he said.

"The Center will be operated by the Public Health Service of the Federal Security Agency. It will be the home of one of the greatest groups of scientists ever gathered together for basic and applied medical research," President Truman said. "The work that is done here in Bethesda will bring life and health to all mankind. This Center is a specific and exciting expression of man's humanity to man. It will save the lives and alleviate the suffering of our own children and grandchildren. But, more than that, it will serve men of all religions, all races, and all nations—everywhere in the world."



University of South Carolina Branch: John S. Hollaud, president; Odell A. Matthews, vice-president; Lois W. Nichols, secretary; and Frances Fair, treasurer.

State University of Iowa Branch: Downing Sherrick, president; Leonard Ruback, vice-president; Donna Adams, secretary; and Carl Johnson, treasurer.

University of New Mexico Branch: Sally Masury, president; Keith Hinrichs, vice-president; Jack O'Shaughnessy, secretary; and Earl Weaver, treasurer.

## STUDENT BRANCHES

Purdue University, a student organization has established its own scholarship. That organization is the Purdue University Branch of the A. Ph. A., the first student branch to take such a forward step. The scholarship, intended for pharmacy students in need of financial aid, is granted under the following provisions:

- Any needy student who neets the University's requirements is eligible.
- The student must belong to the A. Pn. A. student branch and be a junior with a rank of 5 or better.
- 3 Contributions to the principal fund will be accepted from all interested people.

Additional election returns reported by the Student Branches are as follows:

University of Illinois Branch: Paul Tufo, president; Robert L. Reiser, vice-president; Wanda Jagodzinski, secretary; and Edward W. Sehmidt, treasurer.

Kansas University Branch: Fred Mahaffey, president; George Kirk, vice-president; Mrs. Imogene Dreher, secretary; and Gerald Hourigan, treasurer.

University of Connecticut Branch: Robert Elkin, president; John Cuff, vice-president; Rita Karwezyk, secretary; and Herbert Kleinman, treasurer.

University of Utah Branch: Chesley Winteh, president; Charles Fink, vice-president; Bonnie Esperson, secretary; and Dr. Ewart Swinyard, treasurer.

## LOCAL BRANCHES

Jersey Branch elected new officers at the May 15 meeting held in Newark. The officers are: Alex Bell, president; Julius Hegelmann, vice-president; Professor Michael Iannarone, secretary; Professor Cyrus Cox, treasurer; and Dr. Pierre Smith, publicity director.

Mr. Louis Kazin, as guest speaker at the May 15 meeting, discussed "The Year Ahead for Pharmacy."

The Chicago Branch, on June 5, held its annual joint dinner meeting with the hospital and student branches. Mrs. E. R. Serles, president of the Women's Auviliary of the A. Pn. A.; Mr. Harry Levin, president of the Illinois Pharmaceutical Association; and Mr. John Meyers, secretary of the Chicago Retail Druggists Association, greeted the members. Mr. Joseph J. Shine, editor of the Central Pharmaceulical Journal, spoke on "Prescription Pricing Up-to-Date."

Mr. David Palmer, of Wm. S. Merrell Co., addressed members of the Cincinnati Branch at the May 2 meeting. Mr. Palmer's topic was "The Battle of Brands—Private versus Nationally Advertised."

The May meeting of the Michigan Branch was held May 22, in Detroit, in conjunction with the Michigan State Pharmaceutical Association. New officers who will serve during the 1951-52 season are: Donald F. Stocks, president; Albert R. Pisa, vierpresident; E. A. McArthur, treasurer; and Gordon F. Goyette, Jr., secretary.



## Pharmacy Chemistry Bacteriology Biology

Through undergraduate courses of study leading to B Sc degrees in these fields, with graduate study and research leading to M.Sc. and D.Sc. degrees, offer to today's young men and women opportunities for interesting and successful careers. Write for catalog

Philadelphia College of Pharmacy and Science 43rd St., Woodland and Kingsessing Aves., Phila. 4, Penna. Founded in 1821. Lederle builds know-how

Frequently a new idea—or a new product—languishes for lack of knowledge as to its use. This is particularly true of ideas presented to the technical professions. Accordingly, Lederle prepares various types of films that illustrate the methods to be employed in using our products, as well as the results that are likely to be obtained.

The Lederle organization believes that this activity aids the physician to visualize the product in terms of theory and practice, giving him an immediate confidence in its use which would otherwise be attained only by lengthy experimentation and prolonged clinical use.

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PRENATAL CAPSULES. vitamin preparation containing calcium, phosphorus, iron and manganese, for dietary supplementation in pregnancy Boilles of 100 and 1,000 capaules

AUREOMYCIN-The antibiotic that has

effectiveness against a wide range of bacterial, rickeltsial, protozoal and near viral infections

onder drug." because o

This month Lederle will bring to the attention of physicians the following products: TAGATHEN -- Chlorothen Citrateantihistaminic that is useful for the relief of GRAVIDOX\*--Pyridoxine-Thramine Hydrochloride--For the alleviation, in conjunction with other means, of excessive vomiting in pregnancy Solution- Vials of 10 cc Tablets- Boltles of 25 and 250 TRI-IMMUNOL\*\* PURDGENATED\* n litterioit?--- Aist of 1 3 cc

"Reg US Pat On

\*\*Trade mark

## INFORMATION SERVICE

Members of the American Pharmaceutical Association are invited to submit their professional problems to the Journal, 2215 Constitution Are., N. W., Washington 7, D. C., giving all pertinent details. Advisory service is provided by the A. Ph. A. library and technical staff and the Journal panel of technical consultants.

## AMMONIATED DENTIFRICE

Could you send us a stable formula for an ammoniated dentifrice?—D. J. K., Capetown, S. A.

Combinations of diabasic ammonium phosphate and urea in the form of a powder were originally recommended and used in the United States, and efforts were quite early started to develop methods for stabilizing pastes which would prevent the breakdown of the ammonium salt and of the urea in the tube. This was not easy to accomplish and considerable secreey has surrounded the work and formulations of those who have been successful in making a stable ammoniated toothpaste.

According to the Council on Dental Therapeutics [J. Am. Dent. Assoc., 39, 493 (1949)] one of the apparently successful ammoniated toothpastes enjoying large sales in the United States at the present time is composed of the following ingredients in each 100 grams:

Synthetic urea (carbamide)	8 Gm.
Jack Bean meals	1 Gm.
Glycerine	43 Gm.
Dicalcium phosphate	30 Gm.
Tricalcium phosphate	10 Gm.
Propylene glyeol	5 Gm.

The formula also includes saecharin, sulfocolaurate, and flavor.

We have had no experience in the manufacture of toothpastes and we find that information relating to formulations, as a rule, has not been made available through publications.

If you do not have facilities for the development of an ammoniated toothpaste it may be necessary for you to obtain the services of a consultant either in your country or in the United States. Among the consultants in the United States with whom you might wish to correspond are:

LaWall & Harrisson Di Cyan and Brown 1921 Walnut Street Philadelphia 3, Pa. Di Cyan and Brown 12 E. 41st Street New York 17, N. Y.

Seil, Putt and Rusby, Inc. 16 East 34th Street New York 16, N. Y.

We regret that we have not, in this instance, been able to be of greater service to you but information of the type you require simply is not readily available in any cosmetic, pharmaceutical, or related publications.

## CORTONE OPHTHALMIC OINTMENT

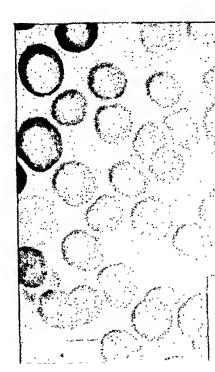
I have had a request to prepare a Cortone ophthalmic ointment. Could you please recommend a method of preparation as far as concentration, type of ointment base, and any information regarding stability and preservative needed, if any. Should it be refrigerated when completed?—D. G., Bulle, Mont.

We regret that we eannot locate information in the literature that will answer your questions. We find in the American Journal of Ophthalmology for September 1950, page 1421, an article by J. C. Heerema and J. S. Friedenwald, which reports that U. S. P. lanolin produces a pronounced inhibition in the healing of minute wounds of rats' corneal epithelium. U. S. P. petrolatum was found to produce less inhibition. U. S. P. lanolin that had been "washed" repeatedly with 0.01 M phosphate buffer (pH 7.4) plus 0.9 per cent sodium chloride showed no inhibition of healing.

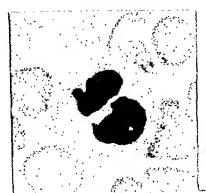
In another article by E. H. Steffensen, et al., in the July issue of the same Journal, a dilution of one volume of original erystalline suspension with four volumes of isotonie saline solution was recommended as the preparation of choice for the use of cortone in ophthalmology.

According to private communications from a member of the Product Development Division of Merck and Company, Cortisone is unreactive and stable and would require neither a preservative nor refrigeration to insure its stability.

From the above information you may feel justified in preparing an ointment in a petrolatum base or in a lanolin base treated as described.



## For iron deficiency anemia



## Cebetinic Tablets

Cebetinic\* tablets supply a logical and well tolerated combination of nutritional factors for hemoglobin formation in iron deficiency anemia.

## Each tablet contains:

Ferrous Gluconate 5.0	grs.
Vitamin B <sub>12</sub> Factors 1.0 micros	ram
(as determined by microbiological assay	)
Folic Acid 0.67	mg.
Thiamine Hydrochloride (B1) 20	mg.
Ribostavin (B <sub>2</sub> ,G) 2.0	mg.
Pyridoxine Hydrochloride (B <sub>0</sub> ) 0.5	mg.
Nicotinamide10.0	mg.
Ascorbic Acid (C)25.0	mg.

Cebetinic tablets are recommended for the prevention and treatment of iron deficiency anemias such as those due to chronic infection, chronic loss of blood and malnutrition.

Supplied in bottles of 60 and 500 tablets.

\*Trademark

Upjohn

Medicine ... Produced with care ... Designed for health

THE UPJOHN COMPANY, WALAWATOD SS, MICHIGA

## Team work



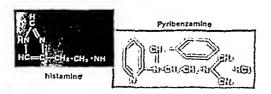
Doctor and Pharmacist share the responsibility of medication; it is only fitting that they share available information. Some of the important facts about Pyribenzamine are summarized here.

## The Why and How of Pyribenzamine

It is generally realized that Pyribenzamine is effective in hay fever, urticaria (hives), allergic rhinitis, and the seasonal asthmas, and relieves many allergic symptoms not responsive to desensitization. All this is true and of great ptactical importance; but how? and wby?

## How does Pyribenzamine work?

Present thought about antihistamines holds that they do not destroy or neutralize histamine; they probably do not even interfete with its formation and release in allergy. In fact, histamine is not the complete answer for allergy. When histamine is a factor, it is believed that antihistamines complete with histamine by attaching themselves to the reacting cell before histamine does.



As can be seen from the above structural formulae, there are differences as well as similarities. The similarities are thought to enable the remedy to secure itself to the living cell at the site of action where histamine would attach itself if it could; the differences account for the absence of allergic symptoms.

#### How are antihistamines tested?

Intravenous injection of 0.5 mg./Kg.\* of histamine can be used to kill test animals. But if the animal is first treated with 5 mg. Pyribenzamine, more than 100 times the lethal dose of histamine is needed to kill it. This and similar tests make it possible to measure quite accurately bour powerful (and how toxic) an antihistaminic drug actually is.

Only after prolonged toxicity tests is the drug ready for trial in humans. Prolonged clinical experience is necessary to determine which drug to choose. (Published reports on Pyribenzamine now number about \$500, embracing thousands of patients.)

\*mg. (Kg. — desage in milligrams of drug per kilogram (2.2 th.) of body usight of the animal receiving the drug; a convenient method of equalizing the desage in a group of animals not all of exactly the same size

## How does it compare with other antihistamines?

Clinical experience favors Pyribenzamine, as shown by nation-wide prescription volume. The ptobable phatmacologic reason behind this fact is revealed in a compatison by Mayer<sup>2</sup>, who indicated the *effective* (uninimal protective) dose versus the *toxic* (minimal lethal) dose for several antihistamines thus:

	Effective Dose mg./Kg.	Toxic Dose mg./Kg.	Safely Factor Effective Dose/Toxic Dose
Compound #1	20-30	750	1/37.5-1/50
12	5.	500	1/100
13	0.2-1	175	1/175-1/875
Pyribenzamine	0.1	240-350	1/2400-1/3500

Thus, one can say that 50 times the effective dose of compound #1 kills the test animal, while with Pytibenzamine the factor of safety is about 3000 times. (This is not an absolute comparison, as stated hete, because of species differences and other factots.)

## How long does the relief last?

Relief generally begins 15 to 30 minutes after taking an uncoated Pyribenzamine tablet and continues for as much as 6 hours. To prolong the relief, a coated Pyribenzamine Delayed Action tablet, designed to take over the therapeutic action 6 hours after ingestion, can be given with the uncoated tablet to make relief continuous for as long as 12 hours at a time.

## What is the dosage?

One 50 mg. tablet of Pyribenzamine four times a day (after meals, and at bedtime) is commonly prescribed for adults.

Half the individual dose can be given as the standard Pyribenzamine tablet, the other half as the Dalatel Action tablet, a 50 mg. tablet of each being taken together. With this 2-tablet regimen taken twice daily, after breakfast and after dinner, continuous 24-hout allergic relief is now available.

## How supplied

Pyribenzamine (tripelennamine) hydrochloride: standard uncoated tablets and *Delayed Action* (coated) tablets. 50 mg. each; bottles of 100 and 1000 tablets.

Gaddum, J. H.; Brit, M. J. 1:867, 1948.
 Mayer, R. L.: J. Allergy 17,153, 1946.

2/17245

## Pyribenzamine

Сіва мармаснитіслі укористь, пче, зимнит, п.ј.



# Builds big store traffic . . .-builds husky babies too!

- There's nothing better or more economical for infant feeding when the aim is to duplicate human milk!
- Stock and sell S-M-A to build friends for your store—increase traffic with steady, repeat business. Helps you build volume in allied baby needs.
- Widely prescribed by physicians. Heavily detailed and advertised to the profession.
- No other fortification needed in Infant feeding when S-M-A is prescribed—just add water.

KEEP ADEQUATE STOCKS DON'T RUN SHORT

SUPPLIEO: S-M-A CONCENTRATEO LIQUID—cans of 13 fl ozs.

S-M-A POWOER-1 Ib cans

Wijeth Incorporated Philadelphia 2, Pa.



with Vitamin C added



R,



## ASSOCIATIONS



June 18 marked the opening of the 70th annual convention of the Texas Pharmaccutical Association, in San Antonio. The theme of the three-day meeting was New Products and Better Service for

Customers of the Corner Drug Store.

For the first time in the seventy-year history of the Texas Pharmaceutical Association, a man and wife team will head both the Association and its ladies' auxiliary. They are H. C. and Mary Patteson, San Antonio, who were elected 1952 presidents at the three-day convention which closed June 20.

Speakers at the convention were: George A. Bender, editor of Modern Pharmacy; Herman C. Nolen, executive vice-president of McKesson & Robbins, New York; L. M. Short, immediate past-president of the Texas Pharmaceutical Association; and John W. McPherrin, editor of American Druggist.

## STATE AND COUNTY ASSOCIATIONS ELECT NEW PRESIDENTS

At the 1951 conventions of state and county associations, the following men were elected as presidents:

### State Association Presidents-

Oregon: J. G. Densem, Portland

Alabama: M. A. Boynton, Birmingham
Colorado: Wayne J. Norman, LaSalle
Connecticut: Dominick S. Zito, Hartford
Idaho: C. M. Irwin, Grangeville
Illinois: George W. Young, Rock Island
Indiana: Emery A. Badanish, Gary
Louisiana: Albert H. Moore, Alexandria
Massachusetts: Wm. B. Blair, Great Barrington
Mississippi: John G. Germany, Shaw
Missouri: Lawis DeClerck, Lee's Summit
Montana: Harry P. Collins, Forsyth
New Jersey: Harry P. Margulies, Coytesville
New York: Jacob J. Goldberg, Richmond Hill
Ohio: Merrill J. Insley, Bellefontaiae

Pennsylvania: Michael Pachuta, Mt. Carmel Rhode Island: Robert A. Smith, W. Warwick South Carolina: William J. Bates, Greenville Tennessee: Allen F. Taylor, Elizabethtou Texas: H. C. Patterson, San Antonio Utah: Charles F. King, Salt Lake City

County and Area Association Presidents-

Hartford County, Conn.: Sidney Arenson

Monmouth-Ocean Counties, N. J.: Benjamin
Schultz

Troy Area, N. Y.: Morris M. Daffner Union County, Ark.: Estes S. Perkins Hudson County, N. Y.: Mieliael P. Pinto Chatham County, Ga.: Ivey J. Cloud

## State Board Appointments-

Arkansas: Maynard Lyons, Lonoke Oklahoma: C. F. Miles, Buffalo; J. C. Cobb, Tishomingo

## COLLEGES



Dr. Ivor Grissith, who has recently completed his tenth year as president of the Philadelphia College of Pharmacy and Science, was honored at the annual Spring Alumni Reunion dinner of

the College on May 24. More than 350 alumni from all parts of the country attended the reunion, which had been designated especially as a testimonial to Dr. Griffith.

Eighteen members of the class of 1901 returned to the College on May 24 to observe the 50th anniversary of their graduation. The group, including seventeen men and one woman, was welcomed by Malcolm W. Cox, president of the Alumni Association and Professor Freeman P. Stroup.

After a preparation period of almost two years, pharmacy students at the University of Florida published the first issue of the College of Pharmacy's new magazine, Q.S. The 24-page quarterly is well illustrated and contains articles both for enjoyment and study.

Oryal J. Cloughly, president of the St. Louis Wholesale Drug Company, was recently honored by the St. Louis College of Pharmacy with the dedication of the "O. J. Cloughly Alumni Library."

Lloyd E. Throekmorton, a member of the class of 1915, was recently elected president of the Alumni Association of the University of Illinois College of Pharmacy. Other officers are: Jack I. Reader, Chicago, vice-president; Ralph E. Terry, Naperville, treasurer; and Samuel Shkolnik, Chicago, treasurer.

(Continued on Page 444)

# Psst...

Don't look now...but this NEW brand of antaciddemulcent, for treatment of hyperacidity and peptic ulcer, is being pushed hard right now in your own neighborhood...with all the resources of Robins' special formula for successful prescription-building promotion. Take a tip—stock up adequately—and promptly...'cause Robalate's a name you're going to long remember.





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Indiana: Emery A. Badanish, Gary
Louisiana: Albert H. Moore, Alexandria
Massachusetts: Wm. B. Blair, Great Barrington
Mississippi: John G. Germany, Shaw
Missouri: Lawis DeClerck, Lee's Summit
Montana: Harry P. Collins, Forsyth
New Jersey: Harry P. Margulies, Coytesville
New York: Jacob J. Goldberg, Richmond Hill
Ohio: Merrill J. Insley, Bellefontaine

Pennsylvania: Michael Pachuta, Mt. Carmel Rhode Island: Robert A Smith, W. Warwick South Carolina: William J. Bates, Greenville Tennessee: Allen F. Taylor, Elizabethton Texas: H. C. Patterson, San Antonio Utah: Charles F. King, Salt Lake City

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(Continued on Page 444)

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BRIEFLY NOTED • • • • • from page 442

## MANUFACTURERS



A new sound slide film that traces the development of modern and more efficient containers for packaging prescriptions has been produced by the Armstrong Cork Company. The color film, "Rx

for Better Business," is being distributed to the Company's district offices for presentation to wholesale druggists' sales meetings.

Dr. S. I. Griboff of New York, serving his internship at New York City's Mt. Sinai Hospital, has been announced as the winner of "The Schering Award for 1950," Mr. Francis C. Brown, president of Schering Corporation, presented the first prize of \$1000 to Dr. Griboff for his paper on "The Clinical Use of Steroid Hormones in Cancer."

Sterling Drug Inc. honored 46 of its employees who have completed 25 years or more of service with the firm, at a dinner of its Quarter Century Club held May 23, in New York City. This marked the second gathering of the Quarter Century Club, which meets every five years.

Exclusive world-wide manufacturing and distribution rights to Thiomerin Sodium, mercurial diurctic used in the treatment of congestive heart failure, were recently purchased by Wyeth, Inc., from the Camphell Pharmaceutical Company.

H. B. Burns, president of U. S. Vitamin Corporation, recently announced the purchase of the properties and business of Arlington Chemical Company of Yonkers, N. Y. The present personnel of Arlington will be expanded and operating policies will be directed by U. S. Vitamin executives.

The A. H. Robins Company, Inc., has announced the opening of a warehouse at 419 South St. Paul Street, Dallas, Tex., to handle orders from Texas, Oklahoma, western Louisiana, and the area around Wichita. Kans.

# vi-syneral vitamin drops

first and original

aqueous solution of fat-soluble plus water-soluble vitamins. (U. S. Patent No. 2,417,299.)

u. s. vitamin corporation casimir funk laboratories, inc. (affiliate) new york 17, n. y.

# Personnel Changes—

American Cyanamid Company, Calco Chemical Division-Dr. R. J. Turner has been named chief chemist for pharmaceuticals at the Boundbrook, N. J., plant. Burroughs Wellcome & Co., Inc.-William H. Davis, with the Company since 1911, has been appointed vice-president in charge of distribution. . Fred A. Coe, Jr., will serve as manager of the distribution unit. Garth H. Quinn has been named general sales manager. Kremers-Urban Company-Dr. C. O. Miller, former president of the Company, has been elected chairman of the Board of Directors and Scientific Director of the Company. . . Ray A. Johns will take over the office of President. A. H. Robins Co., Inc.-John C. Gordon has been named sales office manager. American Home Products Corp.--Kenneth B. Borham recently joined the corporation as assistant to the president. Schenley Laboratories-the six new vice-presidents on the Company's staff are: Dr. Charles E. Dutchess (medical director). Arthur F. Gormley (sales), Sidney N. Sadoff (engineering), Dr. Bruno Puetzer (research). James H. Noves (production), and Samuel Miller (development). Armour Laboratories-Dr. Edward A. Barrett has been named regional medical director of the company's professional service division on the Pacific Coast.

#### HOSPITAL PHARMACY



Henry H. Gregg, and Don E. Francke, president and president elect, respectively, of the AMERICAN PHARMACEUTICAL ASSOCIATION, were guest speakers at a dinner meeting of the Minnesota Hos-

pital Pharmacists' Association held in Minneapolis on May 15. Emphasizing the importance of miffied efforts by every branch of pharmacy, Mr. Gregg urged all present to join and support the work of the A. Ph. A. Mr. Francke, in an address on "Our Society, Past, Present and Future," outlined the development of the A. S. H. P. giving historical background and the work being done toward accomplishing the Society's objectives.

The meeting was held in conjunction with the Upper Midwest Hospital Conference at which the Minnesota Association sponsored an exhibit.

The Division of Hospital Pharmacy sponsored an exhibit at the 26th Annual Convention of the Catholic Hospital Association in Philadelphia, June 2-5. With the central theme developed nround the Minimum Standard for Pharmacies in Hospitals, the exhibit showed the role of the A. Ph. A. and the

(Continued on Page 446)



Analgesic Calamine Dintment (Greaseless) 11/2-02, and 4-02, lubes

BRIEFLY NOTED • • • • • from page 444

A. S. H. P. in providing hetter pharmaceutical service in the nation's hospitals.

In the 5863 hospitals reported in the current issue of Hospitals, Journal of the American Hospital Association, there is a total of 2952 pharmacies. This volume, formerly known as the Statistics and Directory Issue, is now called the Administrators Guide Issue and is published as Part II of the June issue of Hospitals. Income per patient day for 1950 was reported as \$15.80 with an average daily census in the nation's hospitals of 1,252,831. New this year is the section on Management Guides which includes hasic information on each of the hospital departments including pharmacies.

Catholic general hospitals in the United States now total 759 having 90,573 heds, according to the official Catholic Directory of 1951, published by P. J. Kenedy & Sons. New York.

# AT RANDOM



Dr. Louis N. Katz, director of Cardiovascular Research, Michael Reese Hospital, Chicago, elected president of the American Heart Association for the 1951-52 term, on June 7. Dr. Katz suc-

ceeds Dr. Howard B. Sprague, who, hy custom, will become Chairman of the Association's Scientific Council.

Dr. Martha Elliot recently resigned as assistant director-general of the World Health Organization in charge of Advisory Services. Dr. Marcellino Gomes Candau, director of the WHO Division of Organization of Public Health Services, has been named to succeed Dr. Elliot.

A new issue of the Directory of Biological Laboratories has recently been published by the Burns Compiling & Research Organization. This fifth edition, for 1951, is completely revised and has been materially enlarged over previous issues.

Dr. Carl A. Dragstedt, professor and chairman of the department of pharmacology at Northwestern University's Medical School, has been elected president of the Society for Experimental Biology and Medicine.

Volume I, 1951, inaugurates the 24th year of publication of the Hebrew Medical Journal (Harofé Haivri), edited hy Moses Einhorn, M.D. Written in Hehrew, with English summaries, the Journal is a contribution to the development of Hebrew medical literature, and thus aids the newly established Hehrew University Medical School in Jerusalem.

In announcing the recent appointment of Dr. Victor Lorber, Cleveland, Ohio, as its first Career Investigator, the American Heart Association became the first voluntary agency to undertake a program providing for continuing careers of scientific research investigators of proved ability and originality. The Association has established this first of a series of Career Investigatorships as an important phase of its overall national research program.

Dr. C. N. Hugh Long, Dean of the Yale School of Medicine, received the 1951 Banting Memorial Medal from the American Diabetes Association at its annual meeting in Atlantic City, June 9. As medal recipient, Dr. Long delivered a lecture on "The Endocrine Control of the Blood Sugar," as the Banting Memorial Lecture. The Banting Medal and Lectureship was established in 1941 in memory of Dr. Frederick G. Banting, the Canadian scientist who was co-discoverer of insulin.

Dr. George D. Beal, Chairman of the Council of the A. Ph. A., was named a Director of Research of the Mellon Institute of Industrial Research, Pittsburgh, Pa., at the annual meeting of the Institute's Board of Trustees recently. Dr. Beal had previously been Assistant Director. Dr. Edward B. Weidlein, formerly Director of the Institute, was named President and Chairman of the Board. The new titles, in line with recent changes in the hylaws, will not affect the duties of the men, who will continue to carry on the same work as they have done in the past.

Three awards recognizing contributions to public health and welfare were recently announced by the National Society for Medical Research. The awards, in the form of Certificates of Merit, were presented, in order, to: The Ballimore Sun, for excellence in reporting developments in the medical sciences; William R. Manchester of the Sun Staff, for authoring feature articles on the threat of the antivivisectionist cult to medical progress; and Pitman-Moore Company, for a national advertising series depicting animal research underlying major medical discoveries.

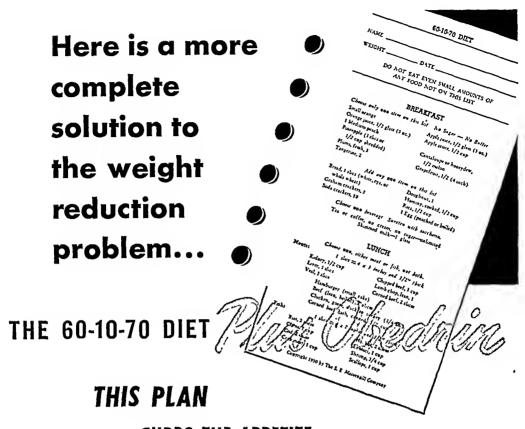
# THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF PHARMACY

Located in the heart of the Nation's Capital, a few blocks from the American Institute of Pharmacy, students have the advantages offered by the Government libraries, laboratories and museums.

A four-year course leading to the degree of Bachelor of Science in Pharmacy is offered.

The School is accredited by the American Council on Pharmacentical Education and holds membership in The American Association of Colleges of Pharmacy.

For oatalogues, write to the Director of Admissions The George Washington University, Washington 6, D. C.



# **CURBS THE APPETITE**

Through the use of the unique 60-10-70 diet and Obedrin tablets, considerable weight can be lost without troublesome hunger or impairment of nitrogen balance. Patient cooperation is assured because morale is kept high and excessive fatigue due to a nutritionally unsound diet is avoided.

#### MAINTAINS GOOD NUTRITION

The 60-10-70 diet allows free choice of many foods and supplies 70 Gm. of protein, 60 Gm. of carbohydrate, and 10 Gm. of fat, approximately 610 calories. The diet sheets are complete and self-explanatory, making it easy for the patient to do his share.

Obedrin permits adequate dosage of Semoxydrine Hydrochloride (methamphetamine) to suppress appetite. The corrective dose of pentobarbital cancels excessive central nervous stimulation, while vitamins help maintain the patient's sense of well-being.

THE S. E. MASSENGILL COMPANY
Bristol, Tenn.-Va.
NEW YORK • SAN FRANCISCO • KANSAS CITY

# FORMULA

Semoxydrine Hydrochloride 5 mg.
Hydrochioride 5 mg.
Pentobarbital Sodium 20 mg.
Ascorbic Acid100 mg.
Thiamine
Hydrochloride 0.5 mg.
Riboflavin 1 mg.
Niacinamide \$ mg.
Obedrin is supplied in bottles



of 100, 500, and 1,000 yellow

grooved tablets.

YOUR WHOLESALER CAN
SUPPLY YOUR NEEDS



# THOMAS A. FOSTER TO SERVE AS PHARMACIST DIRECTOR OF U. S. P. H. S.

Thomas A. Foster, formerly senior pharmacist in the U. S. Public Health Service, has recently been promoted to Pharmacist Director, according to an announcement by Dr. Leonard A. Scheele, Surgeon General of the Public Health Service. A



Thomas A. Foster

career pharmacist in the regular corps of the Public Health Service, Mr. Foster entered the Service as a hospital pharmacist at Mobile, Alabama, in 1933. For several years he served as Administrative Officer for the Washington, D. C., Outpatient Clinic and the Baltimore Marine Hospital. In recent years, he has served as Chief of the Division of Purchase and Supply in the Office of the Surgeon General and as special assistant to the Chief of the Bureau of Medical Services.

Mr. Foster is currently active in the recently created emergency Claimant Agency Office, in which he is serving as Industrial Representative to the health industries of the country.

# PROPOSED AMENDMENTS TO A. Ph. A. CONSTITUTION

The Committee on Constitution and By-Laws of the American Pharmaceutical Association hereby gives notice that it will present, in addition to proposed changes in the By-Laws of the Association, a proposal for the amendment of Article II of the Constitution, dealing with the objects of the Association.

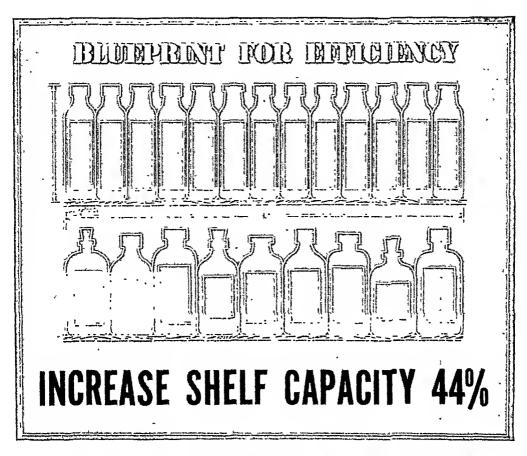
Each member of the Association will receive in advance of the convention, by mail, a copy of the proposed changes in both the Constitution and the By-Laws. Copies of the changes will be available at the time they are presented at the first General Session on Tuesday evening, August 28. A special General Session has been provided on Wednesday evening, August 29, for the discussion of the proposed changes.

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PUBLISHED by the American Pharmoceutical Association Publication Office: 20th and Northumpton Streets, Easton, Pa. Editorial office (and address for oll correspondence): 2215 Coatitution Ave., N. W., Washington 7, D. C.

ANNUAL SUBSCRIPTION—Journol of the American Pharmaceutical Associetion, complete (hoth editions): United States and Pan America \$7; Canoda \$7.70; other foreign \$8; members of the American Pharmaceutical Association with dues, \$4. Each edition, Scientific Edition or Practical Pharmacy Edition: United States and Pan America \$4; Canada \$4.35; other foreign \$4.50. Single numbers, either edition: United States and Pan America \$0.35; Conada \$0.40; other foreign \$0.50. foreign \$0.50

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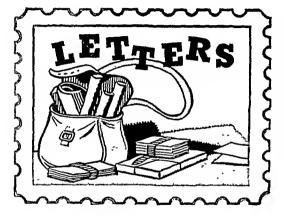
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Readers are urged to express their opinions on matters of importance to pharmacy, or on the contents of any issue of This Journal.

## Foreign Correspondence

Sirs:

With great pleasure I received No. 2 February 1951 of the *Practical Pharmacy Edition*, containing the item, "Centennial of Prof. Paul G. Unna" and I thank you very much for it.

I would be only too glad to join the 1951 Convention as representative of the Deutsche Pharmazeutische Gesellschaft but neither our Society nor myself could afford the costs of the journey. But I shall send the heartiest congratulations on behalf of the Society and shall be present in spirit from August 26–31 in Buffalo. Hamburg, Germany

## Sirs:

In a sheer desire to convey, on the occasion of the enactment of the medicine and pharmacy separation law, our appreciation to all officers and members of your Association of their sincere guidances and friendly assistances we have prepared a certificate of appreciation in the English language and written on traditional Japanese paper with a Japanese writing brush. Simple as it is, we hope that you will understand the genuine spirit of sincerity, with which it has been prepared. It is designed for frame. If you should be good enough to recognize therein our profoundest sense of appreciation and give it a place in your offices, we shall be more than happy, considering that our gratitude for you will be kept ever fresh to you.

Tokyo, Japan

Kazuo Takano Japanese Pharmaceutical Association

# Pharmacist-Physician

Sirs.

I was enrolled at the University of Colorado School of Pharmacy during the term beginning September, 1949, and ending June, 1950. At that time I belonged to your student branch. However, I am at present in the University of Colorado School of Medicine.

You certainly have an organization to be proud of, and I am happy to have been a member. As a medical student, I am sure the pharmacy courses that I took will be beneficial for a better understanding of the aspects of the two fields. Walsenburg. Colo.

NORMAN R. JOSEPH, JR.

#### Card File Index?

Sirs

I have often wondered why the various magazines, especially the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, do not enclose with each issue a table of contents on a small card which could be filed for quick use when looking for back articles. Of course, our magazine does include a complete index at the end of each year but a file card index would appear to be a useful addition.

Steppville, Ala.

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#### Membership Certificate

Sirs:

Just a word to congratulate you on the appearance of this year's membership certificate.

The smooth finish makes it very noticeable Several customers have openly admired it.

New York, N. Y. WALLACE S. HAYES

#### From Student to Active

Sirs:

I would like to inform you of my graduation from the School of Pharmacy of Duquesne University, Pittsburgh, and to ask you to please transfer my membership in the American Pharmaceutical Association to active membership.

Thank you for the interest you have shown all during the time of my student membership in the A. Ph. A. It has been a privilege to belong to such an active student branch as that which is functioning at Duquesne University. It is my earnest desire to continue membership in our splendid organization.

Best wishes to you for continued success in the profession of Pharmacy.

Sister Margaret Mary Siegfrifd Warten, Ohio



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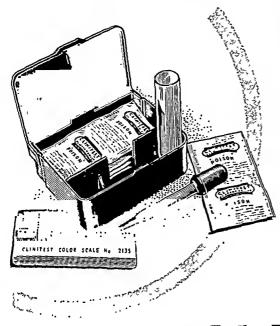
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# diabetic market



In an authority's estimate1 there are 1,000,000 patients "with diabetes ... already diagnosed" plus 1,000,000 individuals "with unrecognized or hidden diabetes."

These 2,000,000 actual and potential customers look to their pharmacy for their specific needs. Aside from insulin, syringes, etc., the repeat product for this market is Clinitestfor the diabetic's prescribed urine-sugar checkups as well as for the doctor's use in diagnosis.

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1, Root, H. F.: Indust. Med. & Surg. 19:257 (June) 1950.

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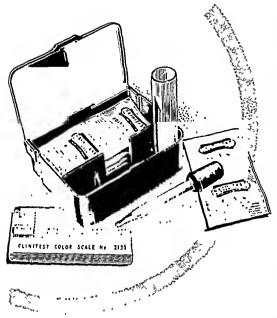
# PROGRESS IN MEDICINE

On the following pages, this month and every month, the pharmacist will find brief digests of the latest clinical reports in leading medical journals. They have been selected because of their immediate interest to both physician and pharmacist.

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# PROGRESS IN MEDICINE



# DIBULINE: EFFECT ON NOCTURNAL GASTRIC SECRETION OF ULCER PATIENTS

Dibuline, administered subcutaneously in doses of 20 to 60 mg, to peptic ulcer patients has previously been shown to produce approximately a 75% decrease in the volume of interdigestive gastric secretion for an average of 96 minutes. However, the relative brevity of its depressant action has detracted from its value as an ideal acid inhibitor. This fact encouraged two physicians of the Temple University Hospital to test it as an inhibitor of nocturnal gastric secretion, which has always been medically difficult to con-They studied its effectiveness in comparison with atropine, on a series of 12 patients. Both proved highly effective, but Dibuline (Merck) was well tolerated and atropine produced exceedingly troublesome side effects. The authors conclude that "the relative lack of toxicity of Dibuline, plus its effectiveness, recommends it as a suitable pharmacological tool...and the beneficial effect produced upon the (patients') clinical progress lends further support to the importance of combating nocturnal gastric secretion in ulcer patients."

(Lorber, S. H., Shay, H., Am. J. M. Sc., 222: 82, July, 1951.)

#### CATION EXCHANGE RESINS

Treatment of the nephrotic patient with cation exchange resins has grown materially in the past few years, since this use of these resins for the relief of edema was first suggested in 1946. Because of potential toxicity, Dr. Richard W. Lippman, Los Angeles, observed the progress of 14 patients over a period of one year. His findings showed that even if the resins today are not

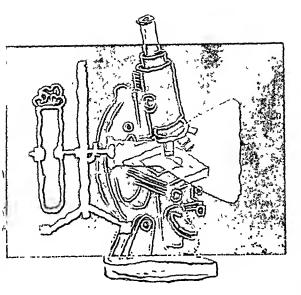
completely developed, from a medical standpoint, they have a useful application in the control of the nephrotic state with edema. Dr. Lippman observed that toxicity could be reduced by preparing the cation exchange resins in various forms, so that other ions than ammonium are released for cations in the environment. He believes it reasonable that a mixture of such resins could be prepared, "balancing ammonium, potassium, calcium and iron forms of the resin, so that such complications as acidosis and hypokalemia could be avoided in most instances."

(Lippman, R. W., Arch. Int. Med., 88: 9, July, 1951.)

# THUMBSUCKING

Thumbsucking, a near universal problem, is of particular importance to parent, dentist, and pediatrician, because of its many physical and psychological implications. Edward S. Mack, D.D.S., clinical instructor in operative dentistry and dentistry for children, College of Physicians and Surgeons, San Francisco, notes that the thumbsucking often results in displacement, altering the form of the dental arch. This presents two solutions: either it can be corrected mechanically, if the family can afford it, or nature itself may possibly correct it after the habit has been stopped. Reviewing various treatment, Dr. Mack concludes that if thumbsucking, after the child is 31/2, is a meaningful habit, psychiatry is indicated; if an empty habit, dentistry. Prior to 31/2 years of age, the patient should be treated psychologically in the home, through adequate affection, amusement and creation of a feeling of security.

(Mack, E. S., J.A.D.A., 43: 33, July, 1951.)



# PONTOCAINE FOR REGIONAL ANALGESIA

Despite the long and effective record of novoeaine, physicians and surgeons have sought a local anesthetic that would have longer lasting qualities. Procaine hydrochloride (novocaine) produces analgesia for only three quarters to an hour and a half. With the introduction of tetracaine (pontoeaine, Winthrop-Stearns), Dr. Daniel C. Moore of the Department of Anesthesia, Mason Clinic, Seattle, Wash., began a study of 2500 patients. He found that pontocaine gave a minimum of five hours of anesthesia when used for nerve block and local infiltration. Only 14 negative reactions occurred in the series of 2500. Postoperative analgesia lasted from four to nine hours, and proved of value in reducing postoperative complications and speeding early ambulation.

(Moore, D. C., J.A.M.A., 146: 803, June 30, 1951.)

# ANTIBIOTICS IN PROTOZOAN DISEASES

The two most widespread protozoan diseases are malaria and amebiasis. The first is being eurbed with marked success, but according to Dr. H. B. Shookhoff, physician in charge of the Tropical Disease Diagnostic Service, Health Department, New York City, amebiasis may actually be spreading. Reviewing the literature, as well as ease histories from his own department, Dr. Shookhoff concludes that bacitracin, aureomycin and terramycin may be listed as amebaci-

dal drugs. Bacitraein is less effective than the other two but is useful for resistant eases. Chloromycetin proved ineffectual. Penicillin is not amebacidal, but is very useful in combination with standard amebacides in severe or resistant eases. Dr. Shookhoff also points out the potential dangers of amebiasis gradually becoming resistant to aureomycin and terramycin.

(Shookhoff, H. B., Bull. N. Y. Acad. Med., 27: 439, July, 1951.)

# DYSMENORRHEA: EDRISAL TREATMENT

Absence of female employees as a result of dysmenorrhea has long been an important factor in industry. Following an earlier report of the effect of Edrisal in this condition, Dr. R. Lomax Wells, medical director of the Chesapeake and Potomae Telephone Companies instituted a study among the 740 female employees of the company. About 20%, or 154 women, took advantage of the offer of free medication during one or more of the six months included in the study. Of these 154 women, 139 stated that Edrisal did give relief, and 106 of these believed it superior to any previous medication they had used. It is interesting to note that 50% of the women gaining relief did so on only 2 tablets; 17% required 5 or more. Despite the reported success from the use of Edrisal, it had no apparent effect, however, on absenteeism.

(Wells, R. L., Med. Ann. District of Columbia, 20: 361, July, 1951.)

# ACNE VULGARIS: MEDICAL TREATMENT

Three physicians from the Department of Dermatology, Presbyterian Hospital, College of Physicians and Surgeons, Columbia University, New York, were encouraged by recent reports on the treatment of aene to attempt a study of 384 patients, using modern medicinals in place of the previously used X-ray therapy. As a control they had a series of 253 patients who had had nothing but X-ray treatment for an average observed time of 35.8 months. In this latter group of 253 patients, 60% were entirely eleared up or improved, 20% showed no appreciable change, and another 20% eleared up temporarily and then retrogressed. In the 384 series treated with antibiotics and estrogenic substances, 23% were cured, 71% were improved, and 6% were unimproved or worse. The physicians conclude that

(Continued on page 458)

# Progress in Medicine

•••••••••••• from page 457

carefully observed treatment with antibiotics and estrogens is superior to the established X-ray techniques.

(Andrews, G. C., Domonkos, A. N., Post, Charles F., J.A.M.A., 146: 1107, July 21, 1951.)

# PRISCOL IN PERIPHERAL VASCULAR DISEASES

Three physicisans from Jersey City Medical Center have had some experience with several new drugs in the treatment of peripheral vascular disease. The drugs they have used have been: diethyl ether, histidine, and ascorbic acid, vitamín E, díbenamíne, tetraethyl ammoníum and Priscoline. In a special study just reported, they review their findings. Of all the drugs Priscoline and intraarterial histamine appear to be of the greatest clinical promise. Twenty-two patients were treated with an average oral daily dose of 200 to 250 mg. taken in divided doses. The average intravenous dose was 50 mg. given three to four times a day. All patients exhibited increased collateral circulation.

(Frank, N., Strazza, J. A., Jr., Helsper, James T., Ann. Int. Med., 35: 19, July, 1951.)

# ANTICOAGULANTS IN ACUTE FROSTBITE

Interest in frostbite has risen perceptibly as a result of the severe exposure of our armed forces. Since unsatisfactory results had been obtained with accepted forms of treatment, four physicians at Cook County Hospital, Chicago, began a series using anticoagulant therapy. Of 30 patients admitted to the hospital for frostbite during the winters of 1949 and 1950, only 14 who were exposed to the cold within 16 hours before treatment was initiated were treated with anticoagulants. The results were most gratifying, as only one of the 14 required local amputation, and that was of a finger only. Hospitalization time was appreciably reduced and the patients returned to normal activities more quickly. Treatment consisted of heparin sodium every three or four hours for maintenance of an elevated clotting time and until added effect with dicumerol was produced.

(Theis, F. V., O'Connor, W. R., Wald, F. J., J.A.M.A., 146: 992, July 14, 1951.)

# TREBURON, NEW SYNTHETIC ANTICOAGULANT

Treburon (RO 2-3053, Hoffmann-La Roche) was first reported at the 1950 fall meeting of the American Society for Pharmacology and Experimental Therapeutics. A more extensive report of its anticoagulant action has now been published, and shows that this new synthetic has an anticoagulant activity about one-fourth to one-half that of heparin by intravenous and intramuscular routes. The toxicity is about one-half that of heparin. Primarily an antithrombin substance, like heparin, it is also partially excreted in the urine. In subacute toxicity tests, repeated administration of Treburon did not adversely affect the growth of the blood picture, and did not produce spontaneous hemorrhages.

(Mangieri, C. N., Engelberg, R., Randall, L. O., J. Pharmacol. & Exper. Therap., 102: 156, July, 1951.)

# TERRAMYCIN AND ROCKY MOUNTAIN SPOTTED FEVER

Chloramphenicol and aureomycin have already been reported for their effectiveness in the treatment of Rocky Mountain Spotted Fever. Now, five doctors from the School of Medicine, University of Maryland, report excellent results as well with terramycin. In a series of seven cases, six experienced rapid recovery under this treatment. The terramycin was in the form of 250 mg. capsules. Striking abatement of the clinical symptoms was observed within 48 hours; absence of obvious signs of illness within 72 hours.

(Powell, A. M., Snyder, M. J., Minor, J. V., Jr., Benson, J. F., Woodward, T. E., Bull. Johns Hopkins Hosp., 89: 30, July, 1951.)

# **CORTISONE SYNTHESIZED**

Synthesis of cortisone from a steroid chemical obtainable in abundance from ergosterol, a product of yeast metabolism; diosgenin, extracted from the Mexican yam; stigmasterol, from soy beans; and cholesterol, from cattle spinal columns and wool fat, was announced early this month. The report covered the last step in the transformation of the chemical compound 3 acetoxy-11, 20-diketo-allopregnane, the synthesis of which was announced in May. The new process is expected to greatly increase the supply of cortisone as soon as production is begun on a broad scale.

(Chemerda, J. M., Chamberlain, E. M., Wilson, E. H., Tishler, Max, J. Am. Chem. Soc., 73: 8, August, 1951.)

(Continued on page 460)



Oral



# and Equally Effective

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Clinical studies have demonstrated that the therapeutic activity of Cortone\* is similar whether administered parenterally or orally. Dosage requirements are approximately the same, and the two routes of administration may be used interchangeably or additively at any time during treatment.

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Progress in Medicine

# HODGKIN'S DISEASE AND TEM

In 1945 it was reported that Hodgkin's Disease and related lymphomas responded to certain nitrogen mustard derivatives. Since that time. synthesis and biological testing have been carried on with a wide spectrum of related chemicals for their tumor-inhibiting properties. Despite this work, no agent has been discovered that is superior to HN2 and HN3, which are powerful vesicants when given directly into the blood stream. However, both of these nitrogen mustard derivatives produce severe nausea and vomiting. Several other agents, taken orally and with greatly reduced emetic reaction have been developed. One such agent is triethylene melamine or TEM. Five California physicians followed the progress of 32 patients with neoplastic disease, nine of whom had Hodgkin's Diseasc. Their findings show that TEM appears to be a drug of some clinical usefulness in the same conditions for which the nitrogen mustard derivatives are indicated. However, remissions of the disease are of short duration, and there is no evidence that the life span is prolonged. The advantages of TEM are largely related to its ease of administration, and the absence of severe nausca and vomiting. The oral administration also allows more continual and regularly spaced treatments. However, TEM has disadvantages as well, including a shorter chemotherapeutic range and effects on bone marrow. The doctors conclude that these disadvantages make imperative closest clinical and hematological observation for at least three weeks following the termination of the therapy.

(Shimkin, M. B., Bierman, H. R., Kelly, Keith H., Lowenhaupt, E., and Furst, A., California Med., 75: 25, July, 1951.)

# HEPARIN, SUBLINGUALLY

Noting that there is general agreement on the advantages of heparin as an anticoagulant, five physicians from Beth Israel Hospital, New York, nevertheless objected to the method of administration. Intramusenlar injection was painful, needed frequently, and sterilization was necessary. They reasoned that all could be avoided by oral administration. The question, obviously, was one of effectiveness. In a series of ten cases it was shown that oral administration obtained a therapeutic level within one half hour and main-

tained for four hours. For their tests, sublingual wafers containing 125.0 mg. of sodium heparin were prepared. The pellet was then placed in the sublingual pouch, where it rapidly disintegrated, and absorption was usually complete within ten minutes. Since there is no known toxicity to heparin, overdosage is not a major consideration. The physicians conclude: "The importance of such a drug in the treatment of frostbite is indicated... the value to the soldier in the field... is obvious. It may well become the method of choice for the early anticoagulant treatment of myocardial infarction, pulmonary embolism, thromboplebitis and in vascular therapy."

(Litwins, J., Vorzimer, J. J., Sussman, L. N., Applezquig, N., Etress, A. D., Proc. Soc. Exp. Biol. and Med., 77: 325, June, 1951.)

# CORTISONE IN FYF DISFASES

In July, 1950, five British physicians, headed by Dr. F. S. Lavery, lecturer on Ophthalmology, University College, Dublin, began a study of cortisone in ophthalmic conditions that seem to have an allergic origin. In all, they treated a variety of eye conditions (143 cases) mostly administering cortisone by subconjunctival injection or in the form of drops. Interstitial keratitis was particularly benefited, and iridocyclitis also improved rapidly. After their series was concluded, the physicians stated "cortisone is very valuable in the control of allergic reactions in the eye, but has no effect on any underlying disease which may be the basic condition."

(Lavery, F. S., Werner, M. B., O'Donoghue, D., Guinan, P. M., MacDougald, J., Brit. Med. Jul., 1285, June 9, 1951.)

Special Reprint Feature:

## DRUG REACTIONS

by Nathan Flaxman, M.D. Chicago Medical School, Chicago, III.

(Reprinted from GP, 4: 1, 47, July, 1951.)

The gravest danger in the use of Dieumarol (bishydroxyeoumarin) is the risk of hemorrhage. Eighty deaths have been attributed to the anti-eoagulants; half of these were due to Dieumarol. This drug is recommended for routine use not only in the treatment of thromboembolism and

(Continued on Page 462)

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Progress in Medicine

acute myoeardial infarction, but also for eongestive heart failure. During 1949 ninc fatalities due to Dicumarol were reported. These, and other nonfatal hemorrhages, occurred despite what was thought to be perfect laboratory control of the prothrombin time determinations, on a single dose or on long-term therapy.

The danger of hemorrhage with this potent drug is always present. The lack of reliable laboratory facilities to measure the prothrombin time is the most important contraindication to its use. Failure to establish a definite diagnosis of myocardial infarction in the presence of other conditions such as dissecting aneurysm of the aorta led to difficulties when the drug was given. Deaths resulted from hemorrhage following lumbar sympathetic blocks, spinal puncture for anesthesia, and other surgery during the use of Dicumarol.

Even with the proper indications for the use of this drug and good laboratory control, the response of the patient may be unpredictable. Thrombosis has occurred even when the prophylactic prothrombin depression has been maintained within the therapeutic range.

Bleeding, the chief site of hemorrhage being the urinary tract, caused by Dicumarol may be controlled in most cases by adequate amounts of water-soluble vitamin K (menadione bisulfite) or K oxide. Transfusion of whole blood and plasma arc of value.

## SULFONAMIDES

Reactions to the sulfa drugs continue to be reported. A fatal reaction from Sulfathalidine (phthalylsulfathiazole) in the treatment of subacute nonspecific ulcerative colitis occurred. Sulfadiazine caused a death due to toxic nephrosis, associated with hyperchloremia and eneephalopathy. In two instances sulfathiazole anuria led to deaths after small doses in patients with no known predisposing renal disorders. Glaucoma also followed the ingestion of sulfathiazole. A recent instance of agranulocytosis, with recevery, was reported due to Gantrisin (sulfisoxazole).

#### **ANTICONVULSANTS**

Dangerous, often irreversible, toxie side effects of these drugs are paneytopenia, exfoliative dermatitis, nephrosis, and hepatitis. The newer anti-epilepties, such as Tridione (trimethadione), Mesantoin, and Phenurone, produce moderately severe but reversible reactions in about 35 per cent of patients, and dangerous toxic ones in 1.5 per cent. During the past 4 years a total of 25 fatal reactions due to these drugs has been reported. Comparatively, bromides, Dilantin (diphenylhydantoin sodium), Mebaral (mephobarbital), and phenobarbital are safe drugs in the treatment of epilepsy. The appearance of a rash or a depression of the blood picture during the use of the drugs calls for the immediate discontinuance of the medication.

#### DIGITOXIN

The increased frequency of digitalis reactions coincides with the shift to the use of the glucoside preparations, especially to digitoxin, and to the routine methods of dosage advised for this drug. Mainly, the difficulty arises because the common symptoms of anorexia, nausea, and vomiting, known to be due to digitalis, occur infrequently in patients treated with digitoxin. Instead, signs of disorders of the cardiac mechanism, especially the more serious conduction disturbances as auricular fibrillation, A-V block, sinus arrest, and paroxysmal ventricular tachycardia are the earliest and most frequent clinical and electrocardiographic manifestations of a digitoxin reaction. Caution is urged with the use of digitoxin, even with a dose of 0.05 mg, daily,

#### **ANTIBIOTICS**

Penicillin. Reactions with the most commonly used antibiotic occur in about 4 per ecnt of treated patients. They are least common with oral administration, increase to 3 per cent following intramuseular injection of the aqueous solutions, and to 6 per cent with penicillin in oil, especially when combined with wax.

Undoubtedly, many bizarre or fatal reactions of sensitivity to the antibiotics have been noted and left unreported by the individual physician. Deaths occurred from exfoliative dermatitis and anaphylactoid shock following penicillin therapy. In the treatment of syphilis, both early and late, Jarisch-Herxheimer reactions caused fatalities. Cutaneous manifestations, especially urticaria and bullous dermatoses, have been commonplace. The appearance of a rash or urticaria during penicillin therapy calls for immediate discontinuance of the antibiotic, as fatal exfoliative dermatitis may result. In patients who have lad previous injections of penicillin, especially asthmatics, it should be used with extreme caution.

Streptomycin. Reactions to this antibiotie

occur in about 8 per cent of treated patients, skin cruptions being observed mainly. The variety of difficulties is greater than with the use of penicillin. Deaths have occurred due to toxic encephalopathy and from exfoliative dermatitis. Other neurotoxic reactions, particularly eighthnerve disturbances, appear in patients treated longer than two weeks with this antibiotic. Severe urticaria, contact dermatitis, stomatitis, palpebral eczema, vertigo, aplastic anemia, and visual disturbances have all been reported due to streptomycin. Here again the appearance of a rash calls for stopping the antibiotic.

Aureomycin. Sensitivity reactions, as angioneurotic edema and pruritus vulvae, developed with this newer antibiotic.

Chloromycetin. An instance of giant urticaria and several of hemopoietic changes have occurred during the administration of this drug.

#### MERCURIAL DIURETICS

Intensive, daily, routine administration of the mercurials has produced some serious reactions. Thirty deaths due to this group of drugs have been reported to date. Fatal mercurialism, in long-treated cases of congestive heart failure, occurs infrequently. Urticaria, sensitivity reactions, tetany, acute urinary retention, salt depletion, and acute dehydration are among the nonfatal reactions. It is probable that the intramuscular route of administration adds to the dangers of hypersensitivity reactions.

By digitalizing the patient first, by maintaining the fluid and salt intake adequately, and by giving the injections of the diuretic as needed and not as a routine, many of the reactions can be avoided in the treatment of congestive heart failure.

## **GOLD**

In the treatment of rheumatoid arthritis by chrysotherapy, a number of nonfatal reactions occurred. Thrombocytopenic purpura, granulocytopenia, and exfoliative dermatitis were frequent; isolated instances of meningitis and hepatitis also occurred. The percentage of toxic reactions due to gold during the first year of rheumatoid arthritis, including mild dermatitis and transient albuminuria, was 48 per cent.

The injections of gold solutions should be withheld at the first sign of toxicity. Treatment with BAL injections is best for acute arsenical poisoning and gold intoxication.

# ANTITHYROID PREPARATIONS

A variety of serious reactions due to thiouracil and its dcrivatives has occurred. Acute yellow atrophy of the liver and agranulocytosis cach caused a death in thiouracil-treated patients. In addition, thiouracil caused many nonfatal reactions of severe leukopenia, lymphadenopathy, thyrotoxic crises, and exophthalmos. Propyl thiouracil toxicity resulted in agranulocytosis, hepatocellular jaundice, acute thrombocytopenic purpura, and periarteritis.

#### ARSENICALS

Neoarsphenamine continues to head the list of arsenicals causing reactions. Encephalopathy and medical shock were reported as the cause of three deaths in the treatment of syphilis with this drug. Aplastic anemia, agranulocytosis, and thrombocytopenic purpura followed intensive arsenotherapy for syphilis, as well as nonfatal encephalopathy. A nitritoid reaction was attributed to Mapharsen (oxophenarsine hydrochloride), and a thrombocytopenic purpura to bismuth arsphenamine sulfonate (Bismarsen).

#### **ANTIHISTAMINICS**

Marked toxic side effects have been noted with the use of the antihistaminics. Most serious of these has been four cases of granulocytopenia with the use of Pyribenzamine (tripelennamine hydrochloride), all nonfatal. Dermatitis due to this drug, local reactions to Thephorin, intoxication from Benadryl (diphenhydramine hydrochloride), toxic psychoses with Trimeton (prophenpyridamine) and agranulocytosis from Diatrin, have all been reported.

#### SUMMARY OF REACTIONS

The most serious drug reactions that have occurred in the past four years are:

- 1. Aplastic anemia due to the antiepileptics as Tridione, Mesantoin, and Phenurone; antibiotics as streptomycin; and arsenicals, mainly neoarsphenamine.
- 2. Exfoliative dermatitis due to the antiepileptics, Tridione and Mesantoin; antibiotics as penicillin and streptomycin; antihistaminics as Pyribenzamine; and chrysotherapy in rheumatoid arthritis.
- 3. Hepatitis due to the same antiepileptics, gold drugs, and the thiouracils.
- 4. Agranulocytosis with the use of neoarsphenamine, Pyribenzamine, Diatrin, gold, Gantrisin, and the thiouracils.
- 5. Thrombocytopenic purpura resulting from the treatment with such drugs as neoarsphenamine, Bismarsen, gold, and the thiouracils.



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VOL. XII, NO. 8 CONSECUTIVE NO. 15

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# AUGUST, 1951

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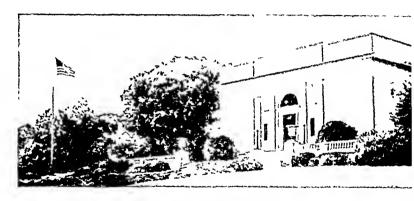
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Washington 7, D. C.

# STRAIGHT FROM HEADQUARTERS



by Robert P. Fischelis, Secretary

AMERICAN PHARMACEUTICAL ASSOCIATION

# "Men At Work" in Buffalo

Many of our readers will be in Buffalo attending the pre-centennial convention of the American Pharmaceutical Association, when this issue of The Journal reaches them. The pharmacists and the people of Buffalo have outdone themselves in making us welcome.

We are fortunate in having among our principal speakers some of the most outstanding figures in government, education, science, the general practice of pharmacy, hospital pharmacy, research and control, law enforcement, and economics.

We shall dispose of important business in the House of Delegates where every phase of American Pharmacy is represented and where issues are decided by the processes of American democracy.

One of the principles at stake at the moment is the preservation of the prerogative of pharmacists to use their professional judgment in matters involving the filling and refilling of prescriptions. Legislation now pending in the Senate affecting the practice of medicine and pharmacy on this important point could well determine the future of this profession. Every effort must be exerted to acquaint the members of the Senate with all of the facts so that they may correct any errors which have crept into the consideration of this very important piece of legislation and keep medicine and pharmacy free from non-professional bureaucratic domination.

Another important issue to be decided—and this will be an issue before the American

Association of Colleges of Pharmacy—is whether our educational program for American pharmacy is to go forward or whether it is to stagnate. The issue involves the important point of giving future pharmacists an education which will train them for citizenship and community leadership as well as for the practice of pharmacy.

The same people who are asking for regimentation in the dispensing of drugs and the compounding of prescriptions are urging low standards of education for pharmacists. At least they can be said to be consistent to this extent.

They do not visualize the pharmacist of the future as a well-educated community leader and respected professional man. They evidently want him to be an order taker. First he will take orders from the Government as to which drugs may be dispensed only on prescription and secondly he will be forced into a class of general merchants who can sell drugs labeled by somebody clse with so-called adequate directions for use. Next, he will have the privilege of competing with non-pharmacists in the sale of proprietaries at cut prices.

Those who view the future pharmacist as a skilled adviser to physicians on dosage forms and brands of drugs and who think of him as a factor in solving the health and medical care problems of his community are convinced that he must have a sound training in the fundamentals of science, economics and social relations as well as acquired professional skills.

The curriculum committee of the Ameri-

can Association of Colleges of Pharmacy has made a thorough study of what courses are necessary to create an acceptable pharmacist and what preliminary education is required at the college level to master these courses. The length of time required to teach such courses acceptably can be computed mathematically. It should not be difficult on this basis to decide whether or not we need a lengthened program of education for students of pharmacy.

Let us hope that the educators will not be stampeded into deciding this issue against their honest judgment by the same forces which are endeavoring to brow-beat the Congress of the United States into setting up a dictatorship for the classification of drugs and regimentation of the practice of medicine and pharmacy.

# Pharmacist Flood Victims

THE recent floods in Kansas and elsewhere have taken their toll of pharmacies. In Kansas alone, Mrs. Clara Miller, the capable Secretary of the State Pharmaceutical Association, reports forty-four pharmacies completely destroyed and one hundred and twenty-four others damaged more or less by floods and high water.

The heartening thing about this catastrophe is that one wholesaler and manufacturer after another is rushing supplies to these stricken areas and every effort is being made to rehabilitate these pharmacies without questioning their ability to pay for new stocks. This generous attitude on the part of suppliers will give these unfortunate men and women new courage to meet the fate which has befallen them through no fault of their own.

Should additional help be needed by any pharmacists in these stricken areas, which cannot be supplied by local agencies, the Red Cross and through Governmental relief funds, we feel sure that the more fortunate pharmacists of America will do their part to help colleagues in the flooded districts.

Pharmacists in the flooded areas who have lost collections of A. Ph. A. publications and would like to replace some or all of them should let us know what they need. We shall be glad to supply what we can, without charge, to the extent of our resources.

It takes occasions like these to demonstrate the interdependence of the drug industry and the profession of pharmacy. We are glad to record appreciation of the fine spirit of helpfulness and cooperation that is being manifested on all sides in behalf of our colleagues who have been the unfortunate victims of this disaster.

# **Our Own Refresher Course**

Much of the important health service rendered by the pharmacist is taken for granted. Few people, and perhaps too few pharmacists, recognize the importance of accuracy in the daily routine of the prescription department. Whenever law enforcement agencies collect prescriptions for the purpose of analysis, and find some deviations from prescribed standards, they are apt to jump to the conclusion that the drug dispensed was deficient. Actually the deficiency may have been due to improperly balanced prescription scales, poorly graduated glassware, badly worn weights or poor measuring and weighing techniques on the part of the compounder.

It was in order to call attention to these more or less obvious possible defects in giving prescription service that Dr. Samuel Goldstein and Dr. Albert M. Mattocks of the laboratory staff of the American Pharmaceutical Association presented their series of articles, of which the final one appears in this issue of The Journal.

Pharmacists who have read these articles carefully will have completed a refresher course on the fundamentals of prescription compounding techniques. Attention to such unglamorous tasks as making sure that a prescription balance is properly set up or that the sensibility reciprocal or an arm ratio is correct or that the shaft and rider and weighbeam are properly adjusted may spell the difference between good and bad prescription compounding.

It has been a pleasure for us to be able to present this series of articles written particularly with the needs of the practicing pharmacist in mind and we shall be glad to hear from our readers as to their interest in these contributions from the Association's laboratory, and receive their suggestions for further contributions along this line.





onel William L. Wilson, stant Administrator, 1th and Welfare Office, oral Civil Defense ninistration



Rear Admiral C. J. Brown, Deputy Surgeon General, United States Navy



Kenneth Perry, General Counsel, Johnson & Johnson



G. Lester Anderson, Dean of Administration University of Buffalo



Icarl D. Pritchard, eneral Chairman, onvention Committee

# MINUTES OF THE CONVENTION OF Tharmaceutists and Aruggists,

HELD IN THE CITY OF NEW YORK. OCTOBER 15, 1851.

Pursuant to a call of the New York College of Pharmacy, a meeting of delegates from the Colleges of Pharmacy of New York, Philadelphia, and Boston, was held at the rooms of the New York College of Pharmacy, No. 511 Broadway, Oct. 15th, at 5 P. M.

Mr. Charles Ellis, of Philadelphia, was appointed Chairmaa, and Dr. Samuel R. Philbrick, of Boston, Sceretary. It was on motion resolved that a committee of one from each delegation he appointed to examine credentials, and nominate officers for the Convention.

George D. Coggeshall, of New York, S. M. Colcord, of Boston, and A. B. Taylor, of Philadelphia, were appointed the Committee.

The Committee reported the names of George D. Coggeshall, Dr. C. B. Guthrie, and Thomas B. Merrick, as delegates from the New York College of Pharmaey; Dr. Samuel R. Philbrick, Thomas Restiaux, and Samuel M. Coleord, as delegates from the Massachusetts College of Pharmaey; and Charles Ellis, William Procter, Jr., and Alfred B. Taylor, as delegates from the Philadelphia College of Pharmaey; and nominated Dr. C. B. Guthrie, of New York, as President, and Alfred B. Taylor, of Philadelphia, as Secretary of the Convention; which nominations were adopted by the Convention.

A letter from Dr. Stewart, of Baltimore, was read, giving his views in regard to the subject, and stating that delegates from the Maryland College of Pharmaey had been appointed; none of whom, however, were present. A communication was received from Cineinnati, informing the Convention that their College of Pharmaey had also appointed delegates, none of whom presented themselves.

The Committee also offered the following preamble and resolutions, which were adopted by the Convention:

Whereas, The advancement of the true interests of the great body of pharmaceutical practitioners in all sections of our country is a subject worthy earnest consideration; and

One hundred years ago this fall, a meeting was held in New York City which led to the founding of the American Pharmaceutical Association. On these pages are reproduced the original minutes of that first meeting.

Whereas, Pharmaceutists, in their intercourse among themselves, with physicians, and the public, should be governed by a code of othics calculated to clevate the standard and improve the practice of their art; and

Whereas, The means of a regular pharmaceutical education should be afforded to the rising pharmaceutists, by the establishment of Schools of Pharmacy in saitable locatioos; and

Whereas, It is greatly to be desired that the nuited oction of the profession should be directed to the accomplishment of these objects; therefore,

Resolved, That in the opinion of this Canvention, much gaod will result from a more extended intercourse between pharmacentists of the several sections of the Union, by which their customs and practice may be assimilated:

That pharmaceutists would promate their individual interests, and advance their prafessians! standing, by forming associations for mutual pratection, and the education of their assistants, when such assaciations have become sufficiently matured; and that in view of these important ends it is further

Resolved, That a Canventian be called, cansisting of three delegates each from incarparated and unincarporated Pharmaceutical Societics, to meet at Philadelphia on the first Wednesday of October, 1852, when all the important questions bearing on the profession may be enusidered, and measures adapted for the organization of a National Association, to meet every year.

In accordance with these resolutions, the President of this Convention is requested to traosmit on invitatian to the authorized bodies, ot least three months previous to the time of meeting, requesting such bodies to ocquaint him with the names of the delegates they may appaint.

A vote of thanks was presented to the New York College of Pharmaey, for the use of their rooms for the sessions of the Convention, and for the social entertainment provided by them.

A vote of thanks was also presented to the officers of the Convention, for the able manner in which they discharged their dutics.

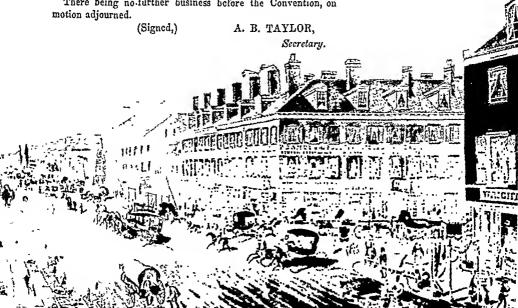
There being no further business before the Convention, on



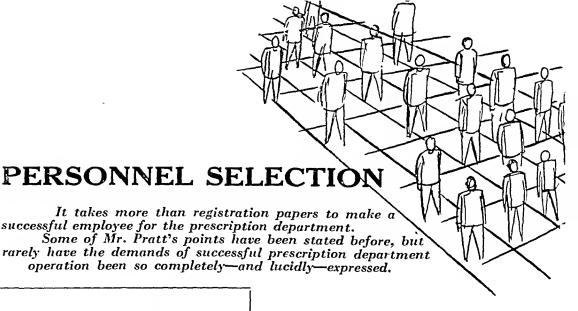
First Secretary,

A. B. Taylor,

of Philadelphia



The first meeting was held October 15, 1851, in the building of the New York College of Pharmacy at the corner of Canal and Broadway. As the opening event of National Pharmacy Weck, a plaque will be affixed at this site.



When you hire a pharmacist you employ not only his pharmaccutical skill, but also his frustrations, animosities, and social idiosyncrasies. In fact, you employ "the whole man"—not just the pharmacist.

A SERVICE organization, such as a retail pharmacy, must have well-adjusted personnel who can stand up under the pressure developed in the act of rendering varied service to all kinds of people. It takes emotionally mature, industrially and medically stable persons with a strong work motivation to build an organization with a foundation of good morale and efficiency which is so necessary in the retail drug business today.

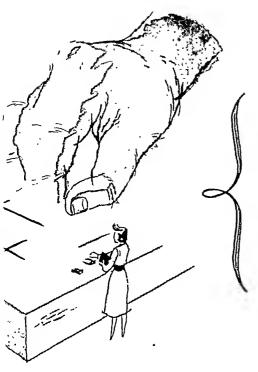
Naturally, we must first of all insist on pharmaceutical know-how and ability as a primary . qualification of the prospective employee. However, there are many other qualities which are essential. The very first thing to be determined is whether we have the kind of material in the applicant that will make a good employee. We must realize that we are not only engaging his working skill but we are also engaging the whole man. . . his frustrations, his straints, and the traditions and animosities of his social group. It is true that a man may be well educated, adequately trained and experienced, be mentally alert, possess excellent coordination, have rapid and excellent perception, and yet if he is unstable, lacking in industry or is a malcontent he will be a poor employee for us and a poor representative

for our profession. These things being as they are we must realize that it takes more than registration papers to make a successful employee for the prescription department. If we are to continue the gains we have made in pharmacy, we must take serious steps to influence the right types of young men to enroll in our pharmacy colleges and use our influence to discourage other types from entering. You may say that this is the work of the deans of the various schools. In this we would agree, but only partially so. The point I would like to make is that the schools are limited in their choice in direct ratio to the number and quality of applicants they have. Naturally, they will take those who, in their opinion, will make the best pharmacists. Our job as practicing pharmacists is to see that the schools get a larger percentage of the right type of applicants.

# THE PRACTICING PHARMACISTS' CHALLENGE

Think how much it would mean to pharmacy if each one of us in practice would find, and influence to join our ranks, one young man (or woman) who is emotionally mature, self-reliant and stable; who has more than his share of perseverance and industry and who possesses loyalty of the brand which will hold his profession in the highest regard, at all times. To me, this appears as a challenge we pharmacists must face if we are to have the type of personnel in our prescription departments we need to continue the forward progress of our profession.

The selection of these men is only one phase



# FOR THE MODERN PHARMACY

by Harold W. Pratt\*

of the job. If we do well in our selection we should have prospective pharmacists who will have a force of character and leadership which will help them to assume the responsibilities of the profession. They will be, to a large extent, pharmacists who have respect for and are proud of their profession, careful of their personal appearance, and considerate in their approach. They will run establishments which are spotlessly clean and inviting, with a professional atmosphere, whether it be one department of a complete modern drugstore as we know them today, or strictly a prescription laboratory.

This type of pharmacist will infuse his patrons with confidence and satisfaction not only for his prescription department but for the profession of pharmacy as a whole. They will be men who will resolve themselves to the fact that today's conditions require a constant postgraduate course in drug therapy. They will realize that it is the mark of a professional man to keep abreast of the developments in his field and whether it be pharmacy, medicine, engineering, or some other group, keeping up to date requires constant study.

#### OUR SECOND CHALLENGE

The changes that have, and are taking place in the medical world today provide another challenge for the pharmacist. Scientific progress in this field is so great that the rapid changes in methods of diagnosis and treatment of diseases are posing a tremendous problem for the doctor practicing today. It is humanly impossible for a physician to keep abreast of all the new drugs and their uses no matter how brilliant he may be. This fact is responsible for the challenge and its corresponding opportunity for the alert pharmacist who will attempt, through the many ways available to him, to set his prescription department up as a clearing house for product information to the doctors in his neighborhood. It is not important whether he has a card index, a loose-leaf catalog, or just a simple file system for the convenient assembling of up-to-theminute information on new products. What is important is that he have the information handy where he can refer to it at a minute's notice when needed. Enough emphasis cannot be placed upon this responsibility of ours as professional pharmacists.

We know of no single medium through which this material may be obtained. We must be continually on the lookout for information in trade journals, and manufacturers' literature. We must also work closely with the detailmen of the various houses, and avail ourselves of the opportunities afforded by the medical journals and the refresher courses offered by our pharmacy schools. We must not overlook the medical sections of the lay publications because of the wide interest displayed in them by our customers.

(Editor's Note: The newly designed "Recent Progress in Medicine" and "New Prescription Products" in the JOURNAL were added to help fulfill this great need of the pharmacist.)

(Continued on page 474)

August, 1951

<sup>\*</sup> Adapted from the paper, "Prescription Department Personnel, Selection. Utilization and Compensation," presented before the Section on Pharmaceutical Economics, A. Ph. A. Convention, Atlantic City, N. J., May, 1950.

# Personnel Selection

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A pharmacist today must also be trained to evaluate the sales potential which the new products possess so that he will be able to supply the demand as it arises. While we realize that Houdini himself could not correctly anticipate his needs of many of the new products, we still insist that we must be more careful than we have been and watch our inventories much closer. While it is our responsibility to both the doctor and his patient to supply their needs, it is obvious that we cannot do this indefinitely without the proper turnover to give us a fair profit.

While we are prone to criticize the pharmaceutical manufacturers for the many duplications of drug products, we are never going to correct this problem as long as we have our free enterprise system, and we hope that is forever. Rather, we must capitalize on our knowledge by doing a good job of detailing the physicians whose prescriptions we are filling. It would seem then that keeping up to date through constant searching for knowledge will serve a dual purpose by helping both

# Author's Summary

Modern day pharmaey demands well-adjusted personnel, able to cope with a variety of activities.

It takes more than registration papers to make a successful employee for the prescription department.

No matter how well trained or educated a man may be, he will be a poor representative of the profession if he is discontented.

Proper selection is one thing, but proper supervision and guidance is the owner's duty.

Pharmaeists must all keep abreast of new developments, and the store owners and managers should be leaders in this type of endeavor, encouraging their employees to do likewise.

Income from pharmacy has increased, and store hours have been reduced. Pharmacists today have the time to keep up. All they need is the energy and the intense desire to serve their communities better.

the physician and ourselves. A pharmacist must then, through study, know what is available for the physician to use and he must, through proper contact and association with the physician, gain his confidence and respect to the point where he can guide the prescribing habits sufficiently well to protect his inventory turnover. To me these are strictly prescription department problems which must be handled by the pharmacist.

We realize that the required study and reading take time, but when has the pharmacist been in a better position to give his time to study? Our hours have been drastically reduced and our earnings are such today so that we can attend educational sessions such as the annual A. Ph. A. convention and others.

Now, too, from the social standpoint, we can financially afford to associate more freely with the physician where much of the results may be obtained.

There are many things which come under the heading of utilization, such as the proper procedures to use in the department, adequate pricing schedules, and many others which we feel too obvious to mention. It is that urgent need for a closer connection between the doctor and the pharmacist, professionally, which should give us cause for action.

Just the other day we heard an employer complain severely about the short hours and the high wages of his pharmacists. Being a pharmacist himself, and having worked 90 hours a week for probably \$30.00 in a small drugstore for years, he finally saved enough to buy his own store and then worked more hours, for less money, for another long period. Now, finally, he has reached the point under today's conditions in which he is driving a Cadillac and enjoys a winter vacation in Florida and a summer one in Northern Michigan, and he is still outraged at the high wages and short hours of his pharmacist employees.

For myself, I will take the high wages and short hours, the Cadillacs and twin vacations. Let's remember that a happy employee who has a chance to live, will, under almost all conditions, deliver a great deal more profit to his employer and will uphold the high standards of the profession to a much greater degree than his counterpart who is overworked and poorly paid.

Yes, we must all have an incentive if we are to be successful. We must keep our hours as low and our salaries as high as reason will permit, and we must add to that additional incentives to our employees in the way of bonuses based on results obtained through extra efforts. This is the only way we will continue to progress.